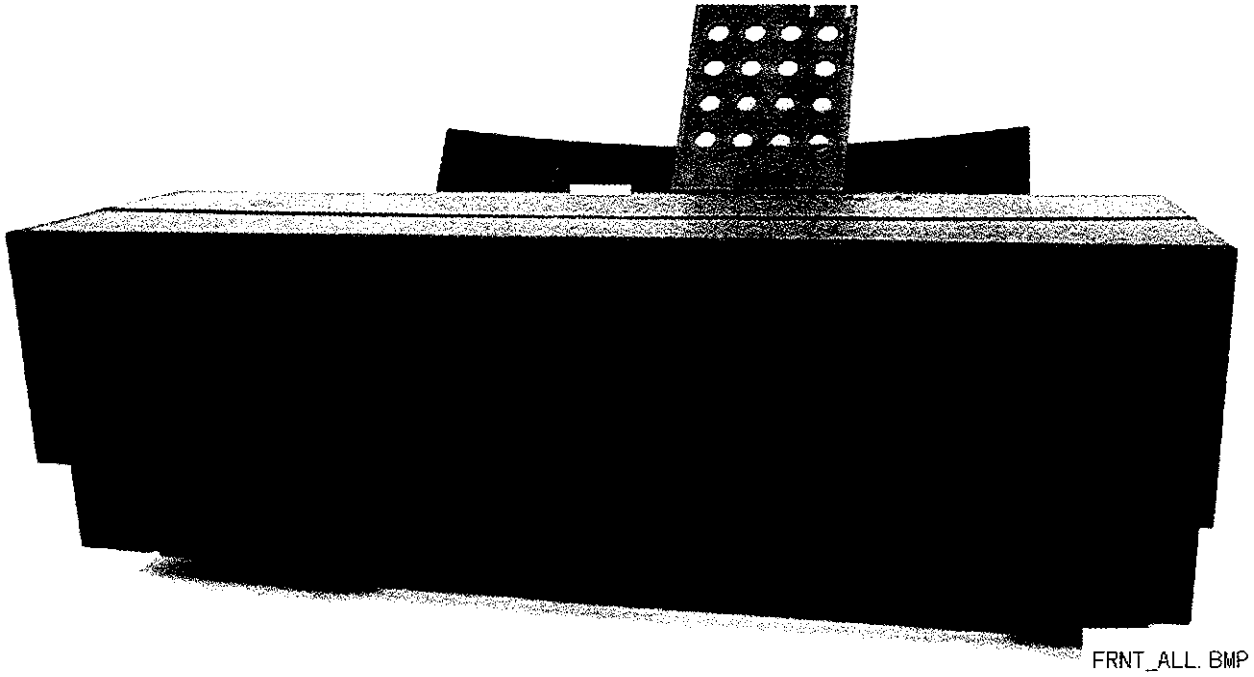
Micro Dry™ Printer

OKI DP-5000

Maintenance Manual Ver. 1.0



FRNT_ALL. BMP

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Designed: M. Honda Date: Sep. 18-1999

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Approved: T. Nakano Date: Sept. 18-199

Change Record Table

Symbol	Date	Contents	Approved	Checked	Designed
--------	----------	Ver.1.0 release	----------	----------	----------

Foreword

This manual has been designed for trained service personnel and describes how to maintain and repair. This manual is not intended for general users.

This manual comprises the following chapters.

Chapter 1: Printer Illustration P2-

Chapter 2: Decomposition P6-

Chapter 3: Assembly P19-

Chapter 4: Adjustments, Printing test P37-

Chapter 5: Maintenance/Lubrication P47-

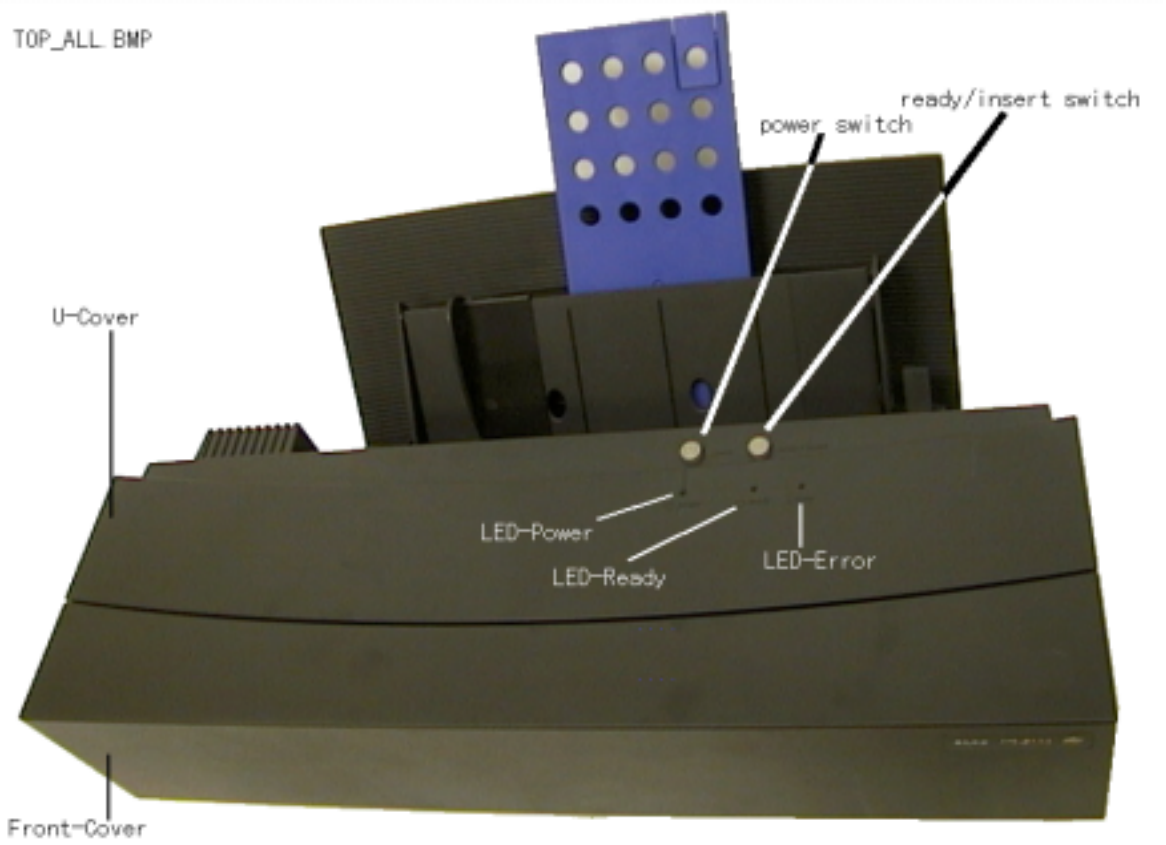
Chapter 6: Troubleshooting P50-

Chapter 7: Component List P53-

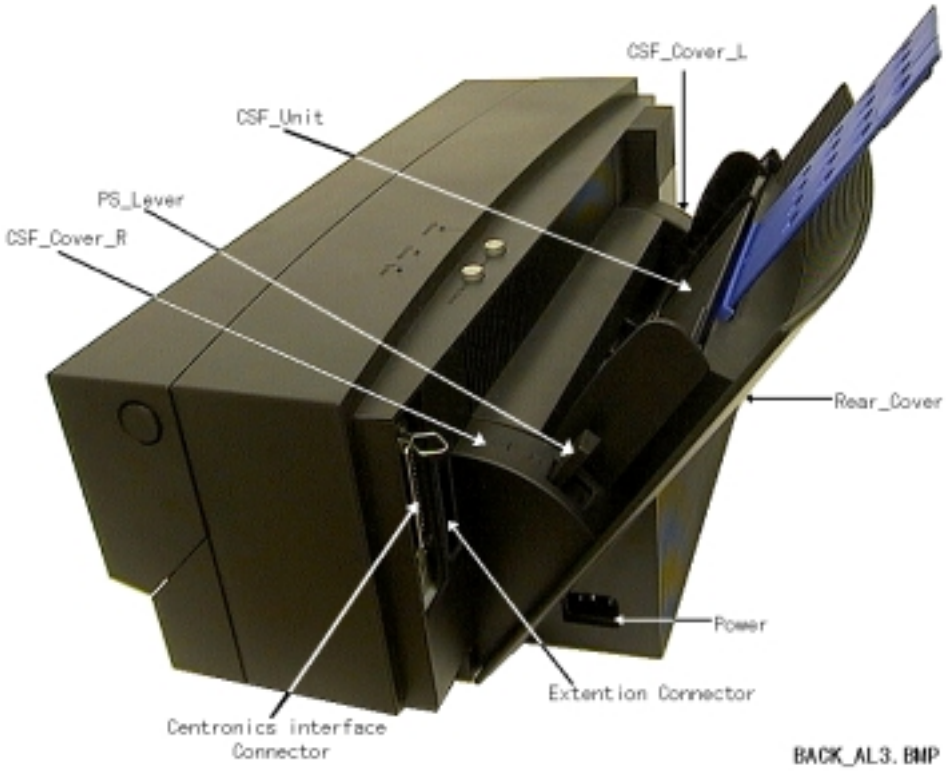
Chapter 8: Parts Exchange P60-

Chapter 9: Software P68-

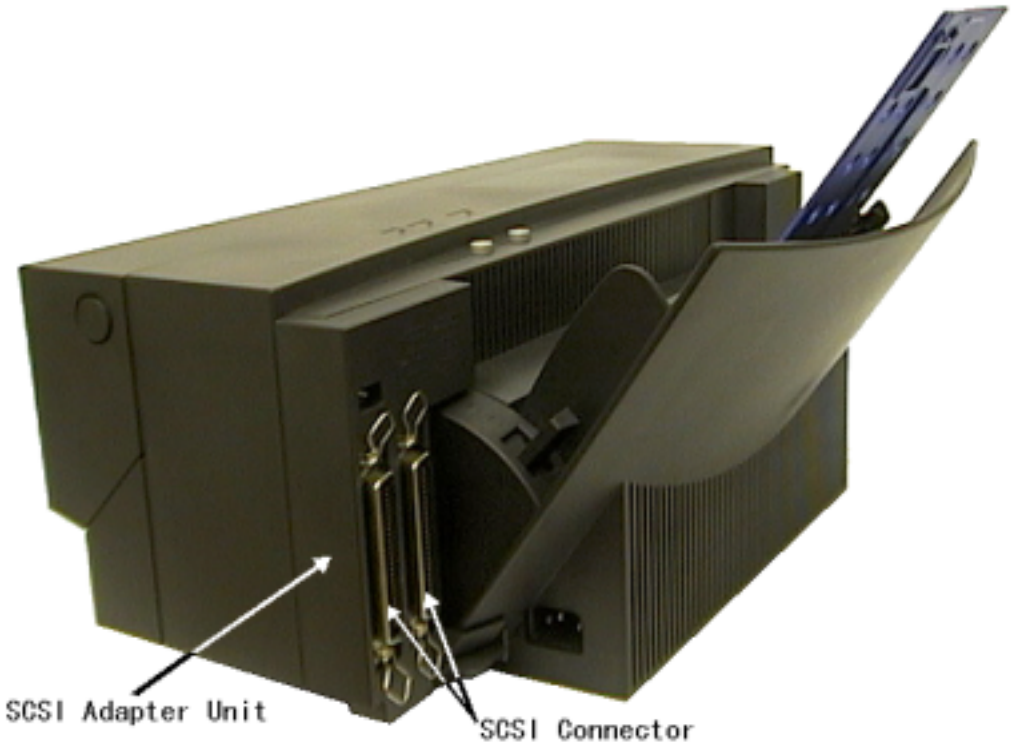
Chapter 1: Printer Illustration



BACK_AL2.BMP



BACK_AL3.BMP



BACK_AL4.BMP

1.1 Operation Panel

1) power Switch
   Printer power

2) ready/insert Switch
   Self-printing ,Paper intake/eject

3) LED
   Power : Indicates if power is turned on. This LED also blinks the HEX dump/self printing status.

   Ready : This LED blinks when the print data is received. Moreover, when an error occurs, LED is turned off.

   error : Indicates printer is in an error state.
   Blinking: Alarm Off: Normal

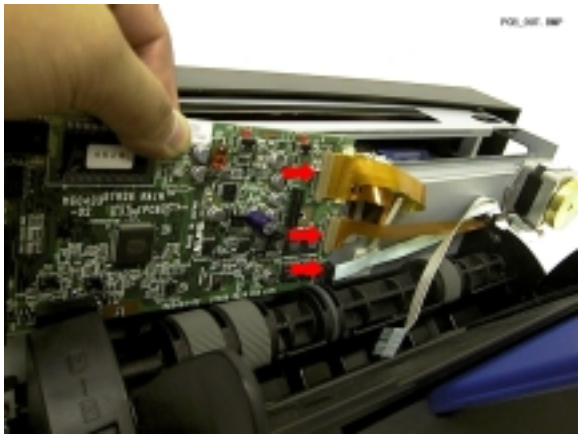
2.1 Detaching of Cases

1		2	
	Remove the screw (M3*L10P) in the place of the arrows 1, 2 and 3.		Lift the point of Rear Cover with tweezers in the direction of the arrow .(2 places)
3		4	
	Lift up and remove the Rear Cover in the direction of the arrow.		Pull right side of U Cover Assy after Front Cover is opened in the direction of the arrow 1, and lift up the lower part of U Cover Assy in the direction of the arrow 2.

5		6	
	Insert the tweezers in the space between U_Cover Assy and CSF Cover_L, remove the CSF Cover_L. Next, pull out FAN cable from the connector of power supply.		Insert the tweezers through the opening of lower part of left side of U_Cover Assy and move tweezers in the direction of the arrow until clicks. And remove U_Cover Assy.

2.2 Detaching of Main_PCB

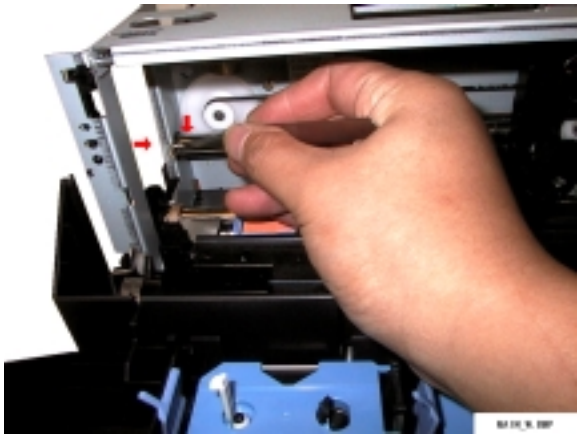
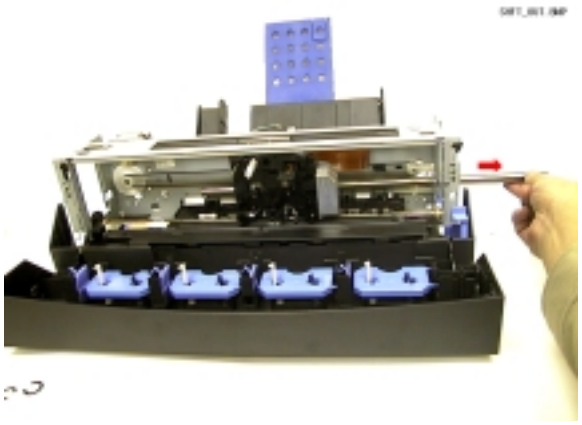
1		2	
	Remove the DC_Tape from the connector on the Main_PCB side and the screw-driver is inserted from the hole shown in Figure.		Remove the screw (M3*L6TP) in the place of the arrow.

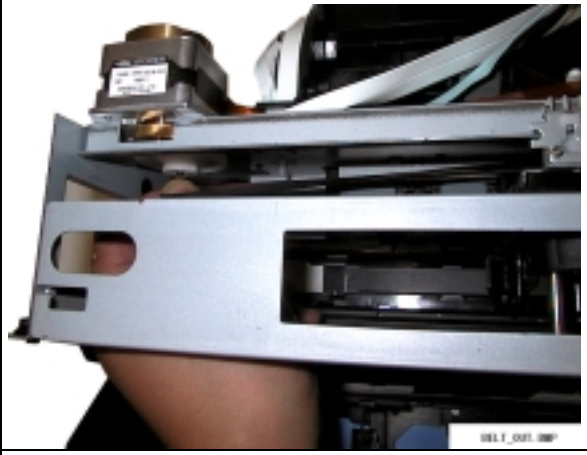
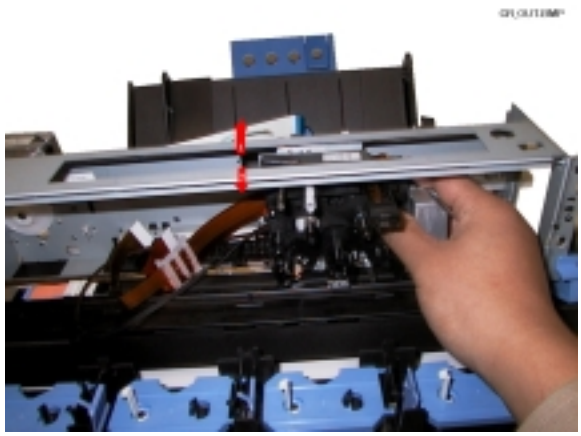
3		4	
	Remove the screws(1,2-M3*L12, 3-M3*L6BIND) in the place of the arrows 1, 2 and 3.		Take off the one harness and the three FPC's from connectors in the place of the arrows.

2.3 Detaching of FAN

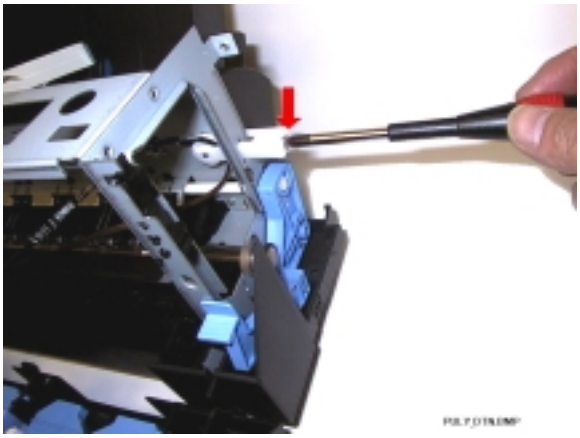
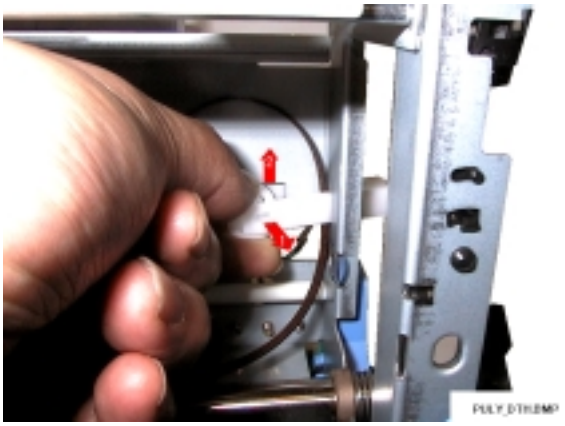
1			
	Remove the screws in the place of the arrows 1 and 2.		

2.4 Detaching of Carriage_Unit

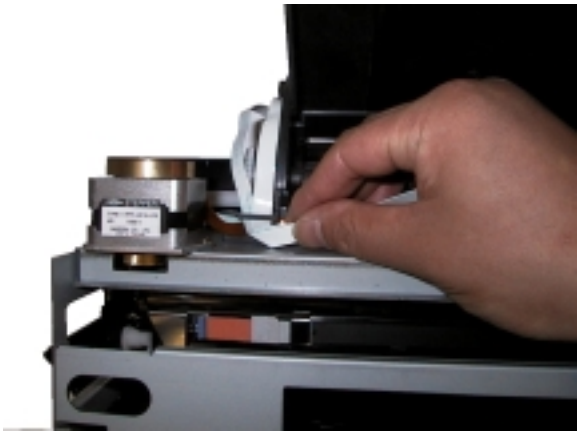
1		2	
	Remove the Washer (for Main_Shaft) with tweezers in the place of the arrows 1, 2 and 3.		Pull out the Main_Shaft in the direction of the arrow.

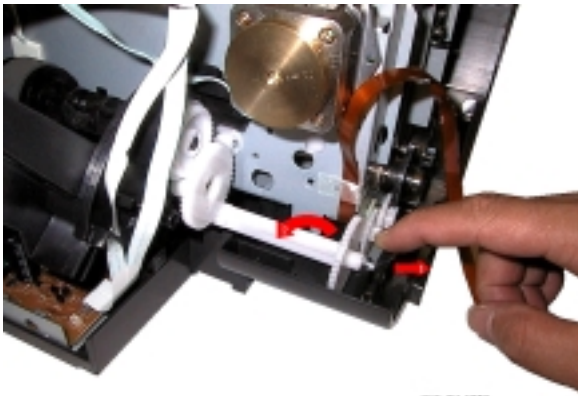
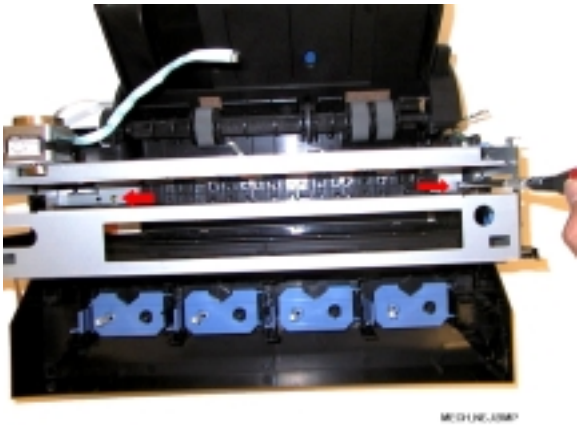
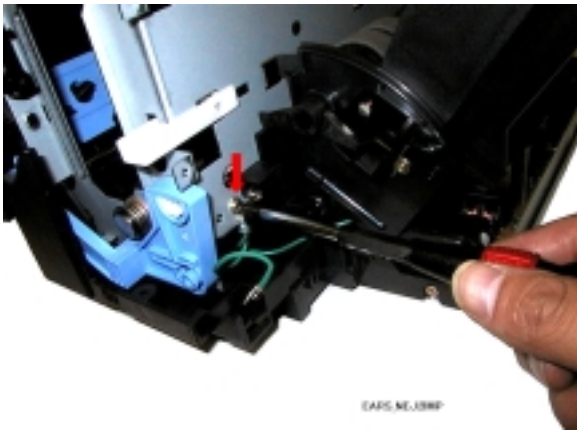
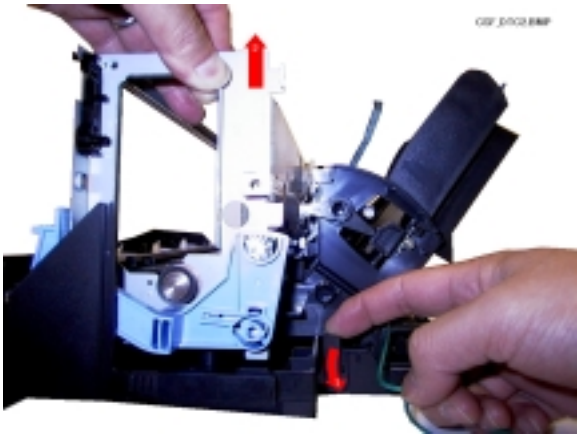
3		4	
	Take off the CR_Belt from Drive_Pulley.		Push the snap in the place of the arrow and remove the FPC_Holder from Frame_Assy and then move the FPC to Carriage_Unit side.
5		6	
	Lift up and pull out the Carriage from inside of Frame_Unit.		Take off the CR_Belt from Carriage in the direction of the arrow.

2.5 Detaching of Sub_Pulley

1		2	
	Remove the Pulley_Base_Shaft in the place of the arrow with screwdriver. And remove the Belt_Spring.		Spread the points of Pulley_Base in the direction of arrow 1 and remove the Sub_Pulley to the direction of arrow 2. And remove the CR_Belt.

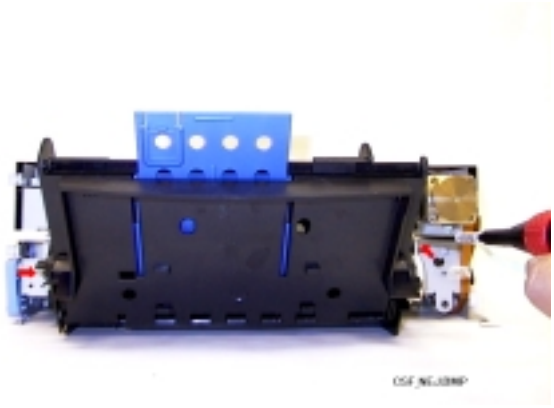
2.6 Detaching of Mechanism

1		2	
	Remove the CSF_Cover_R in the direction of arrow.		Remove the Three FPC(DC Tape,frame FPC,and CR motor cable).

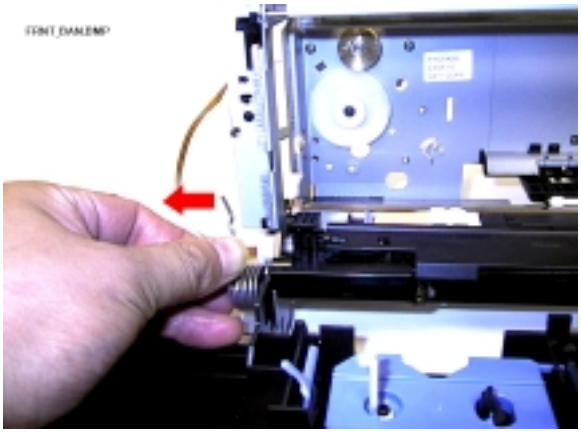
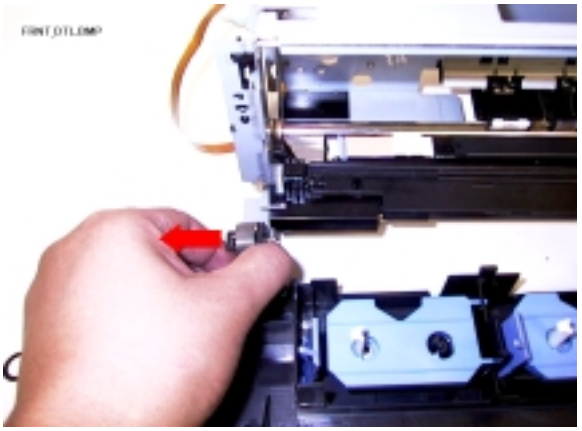
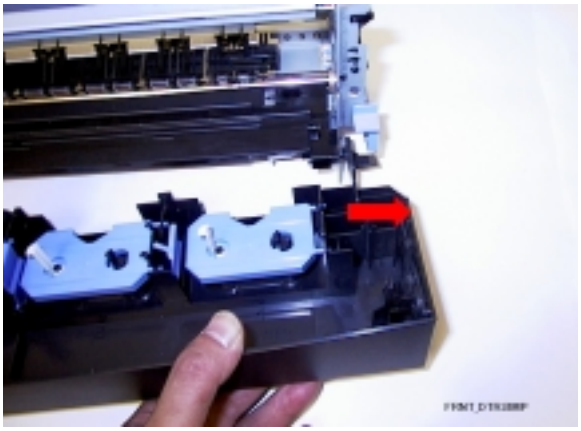
3		4	
	Pull the point of L_Cover_Assy in the direction of the arrow 1 and remove the CSF_Idle_Gear in the direction of the arrow 2.		Remove the screws (M3*L10P) in the place of the arrows 1 and 2.
5		6	
	Remove the screw (M3*L6BIND) in the place of the arrow.		Pull the point of L_Cover_Assy in the direction of the arrow 1 and lift up the Mechanism a little in the direction of the arrow 2. Do same procedure on each side.

7			
	Lift up in the direction of the arrows and remove the Mechanism.		

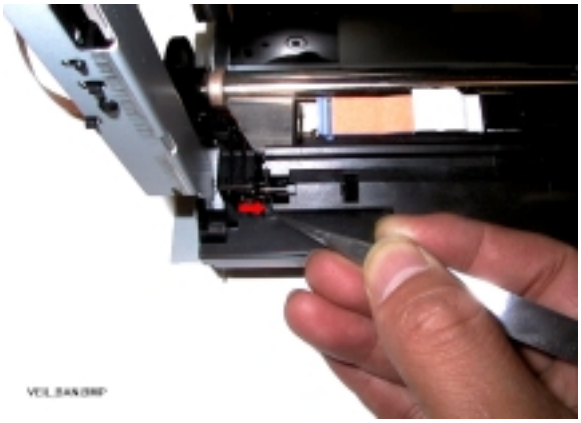
2.7 Detaching of CSF_Unit

1		2	
	Remove the screws (M3*L6TP) in the place of the arrows 1 and 2.		Remove the CSF_Unit in the direction of the arrow.

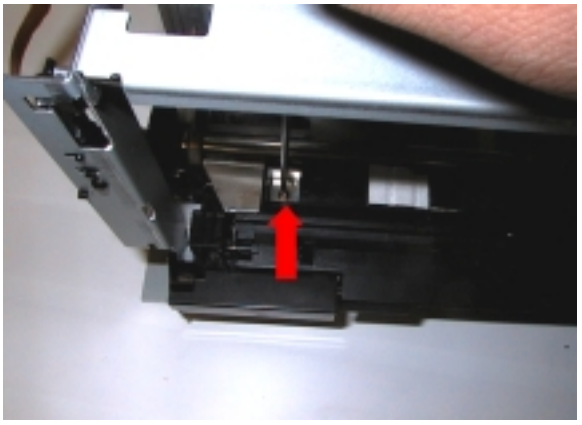
2.8 Detaching of Front_Cover_Unit

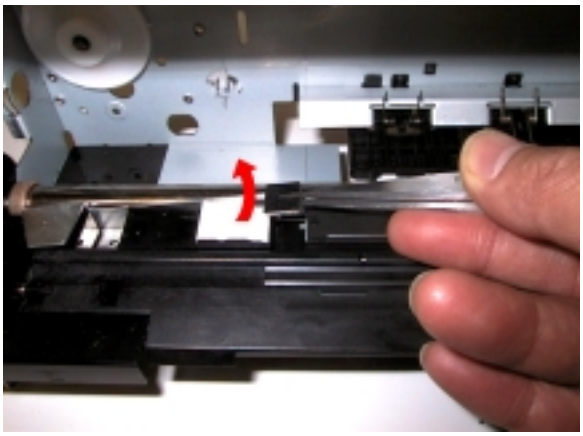
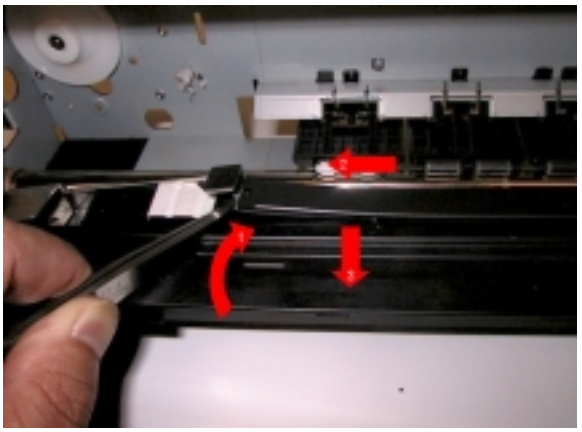
1		2	
	Remove the Damper_Spring from Frame_Unit in the direction of the arrow.		Remove the left side of Front_Cover_Unit from Frame_Unit in the direction of the arrow.
3			
	Remove the right side of Front_Cover_Unit from Frame_Unit in the direction of the arrow.		

2.9 Detaching of Veil_Unit

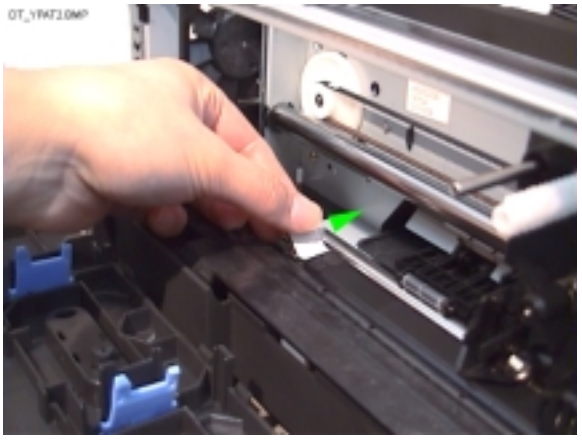
1		2	
	Place the leg of the Veil_Spring in the hooks on the Veil_Unit. (To prevent the Spring being lost.)		Push the projection in the hole of Veil_Unit in the direction of arrow 1 and shift Veil_Unit in the direction of arrow 2. And lift up and remove it in the direction of arrow 3.

2.10 Detaching of Platen

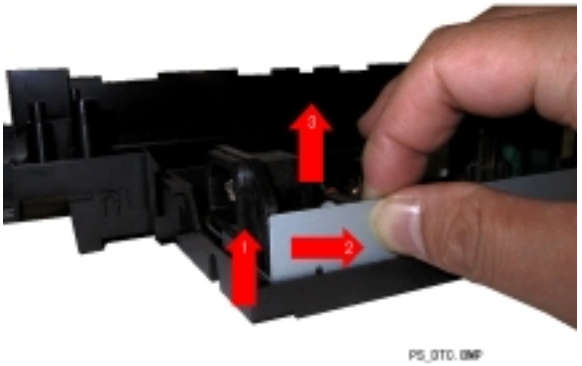
1		2	
	Remove Cleaning-Pad_Dye-Sub from Frame_Unit in the direction of the arrow.		Remove the screw in the place of the arrow with screwdriver.

3		4	
	Lift up the heat sink in the direction of the arrow.		Lift up the Platen in the direction of the arrow 1 and shift Platen in the direction of the arrow 2. And lift up and remove it in the direction of the arrow 3.

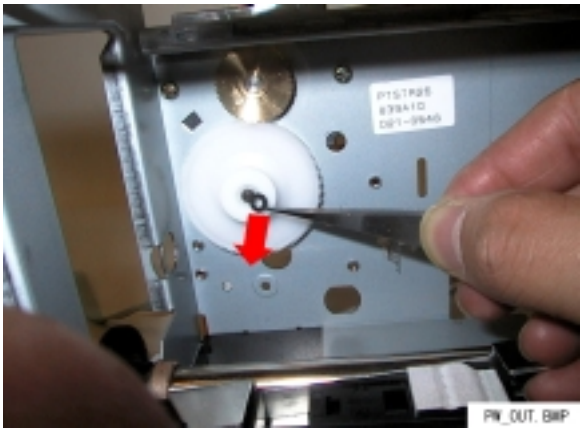
2.11 Detaching of Cleaning_Pad

1		2	
	Lift up and remove the Cleaning_Pad_Dye-Sub in the direction of the arrow.		Take and remove the Cleaning_Pad in the direction of the arrow.

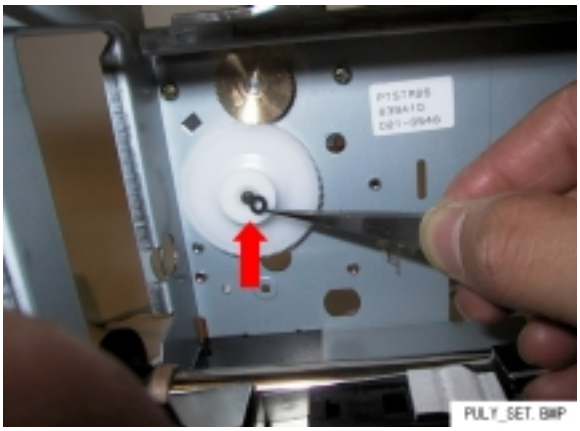
2.12 Detaching of Power_Supply

1		2	
	Remove the screws (1,2-M3*L6BIND) in the place of the arrows 1 and 2. And take off the DC_Cable in the place of the arrow 3.		Lift up and shift the Power_Supply in the direction of the arrows 1, 2 and remove it in the direction of the arrow 3.

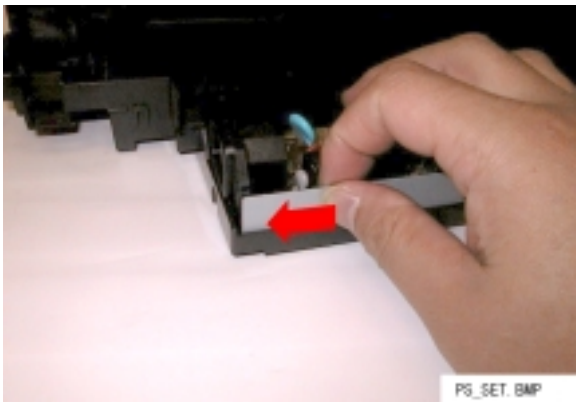
2.13 Detaching of CR_Drive_Pulley

1			
	Remove the CR_Drive_Pulley and Pulley_Flange after removing the Washer (for Pulley) as shown.		

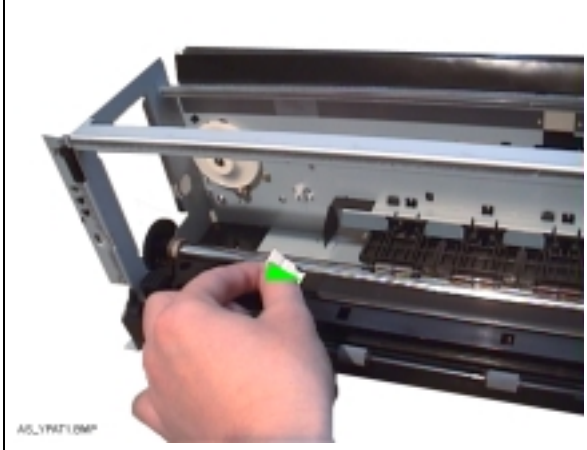
3.1 Installing of CR_Drive_Pulley

1			
	Install the Washer (for pulley) after installing the CR_Drive_Pulley and Pulley_Flange as shown. The removed Washer(for pulley) cannot be Reused once. Use the new article.		

3.2 Installing of Power_Supply

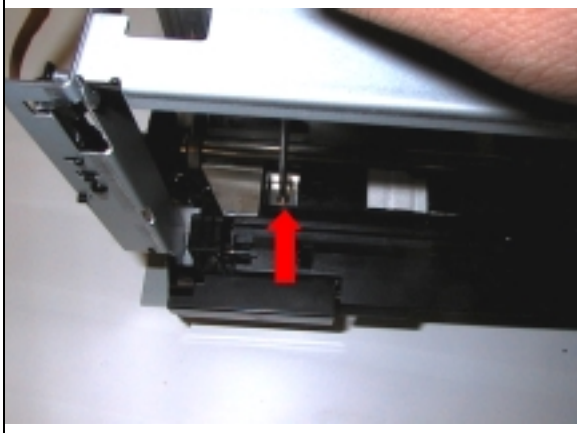
1		2	
	Put the Power_Supply in and shift it in the direction of the arrow.		Install the screws (1,2-M3*L6BIND) in the place of the arrows 1 and 2. And insert the DC_Cable in the place of the arrow 3.

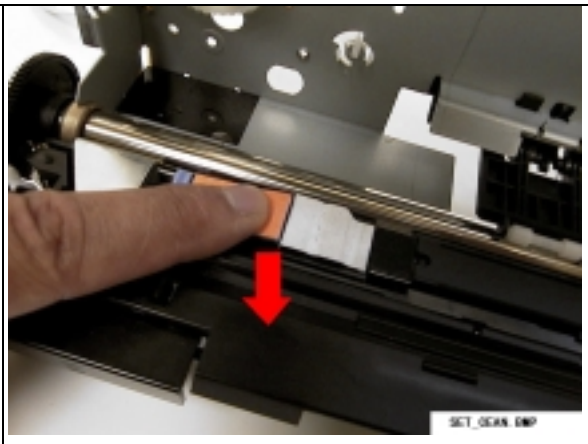
3.3 Installing of Cleaning_pad

1		2	
	Stick the Cleaning_Pad in the area shown in the direction of the arrow.		Put and push the Cleaning_Pad_Dye-Sub in the direction of the arrow until clicks.

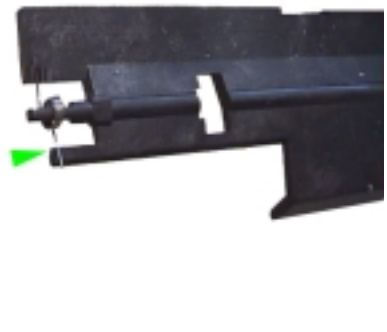
3.4 Installing of Platen

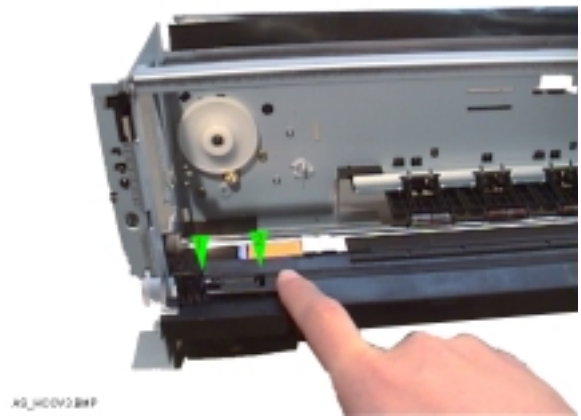
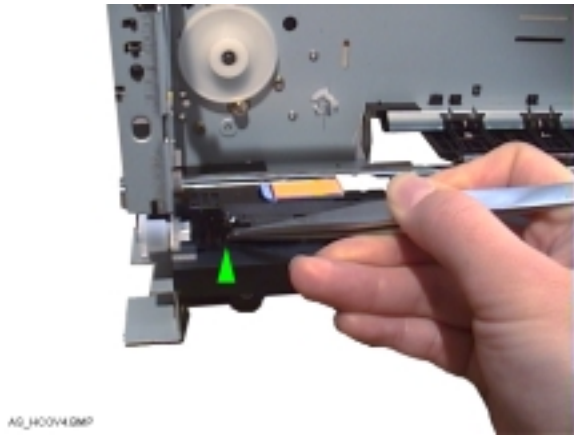
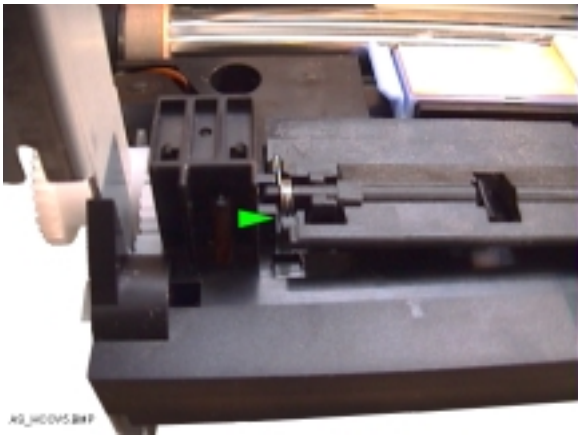
1		2	
	Put the Platen under the heat sink.		Put the Platen under the projection of No.1-No.3 doing the slide in the direction of the arrow (No.4).

3			
	Push the cooling pad in the direction of the arrow.		Tighten the screw in the place of the arrow.

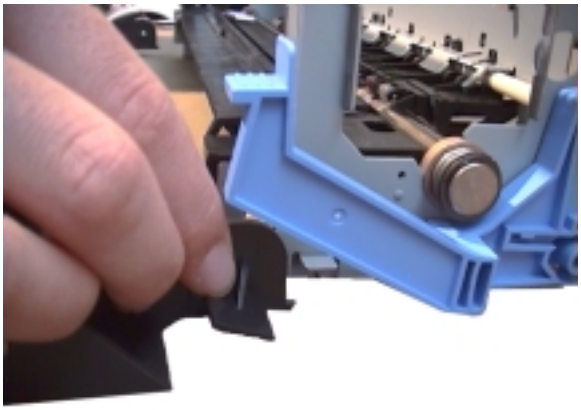
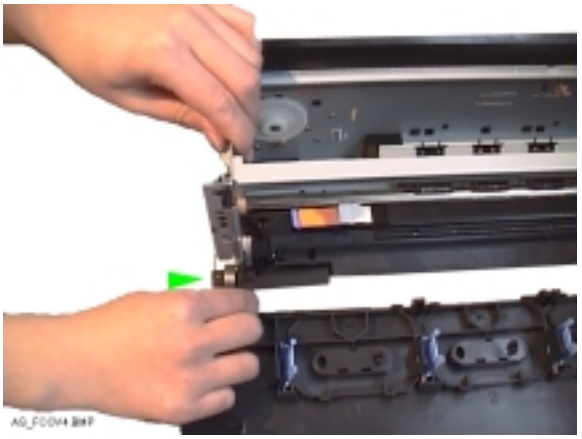
			
	Push the Cleaning_Pad_Dye-Sub in the direction of the arrow.		

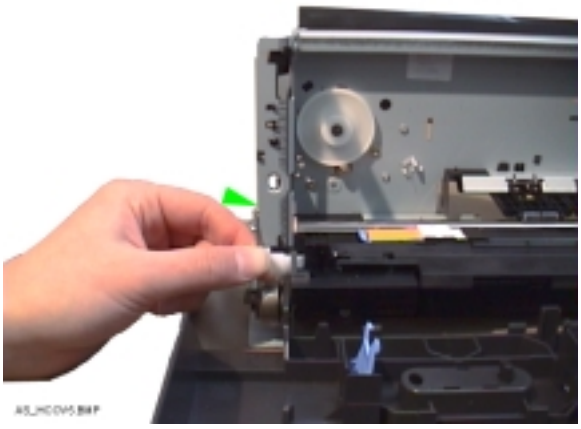
3.5 Installing of Veil_Unit

1		2	
	Install the Veil_Spring on left side of the Veil_Unit as shown.		Insert the point of right side of the Veil_Unit in the hole at the place of the arrow.

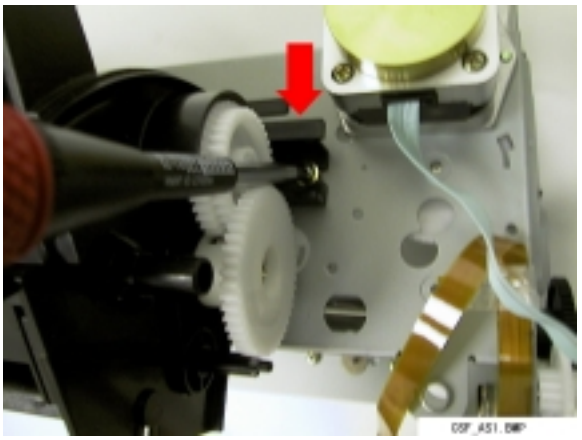
3		4	
	Install the point of the left side of Veil_Unit in the place of the arrow 1 and install the projection in the hole of Veil_Unit by pushing the place of the arrow 2.		Take off this side leg of Veil_Spring from Veil_Unit.
5			
	Detail after installing.		

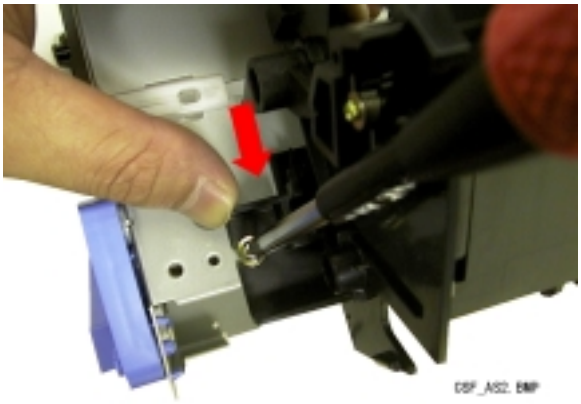
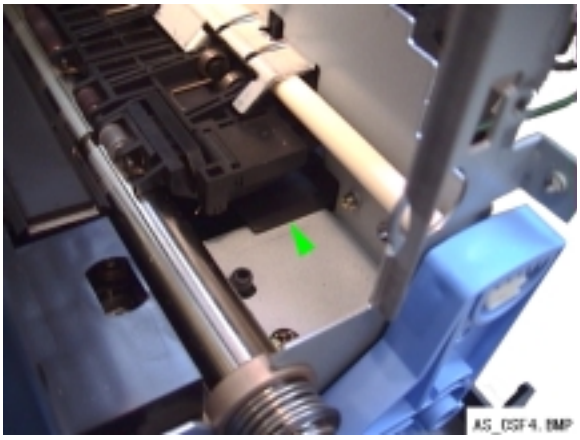
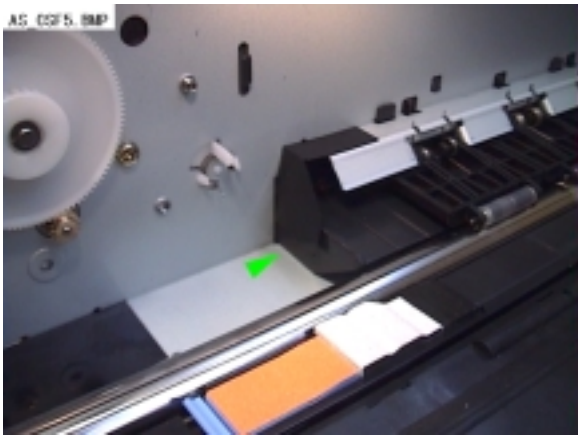
3.6 Installing of Front_Cover_Unit

			
	Install right side of the Front_Cover_Unit to Frame_Unit.		Install left side of the Front_Cover_Unit to Frame_Unit.

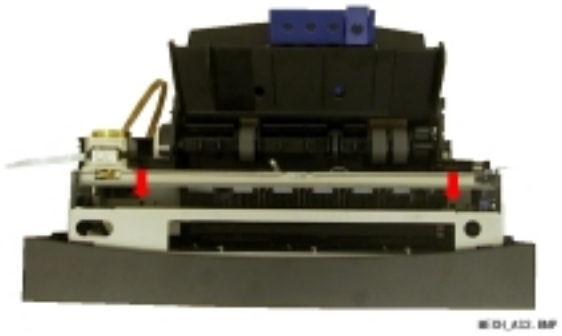
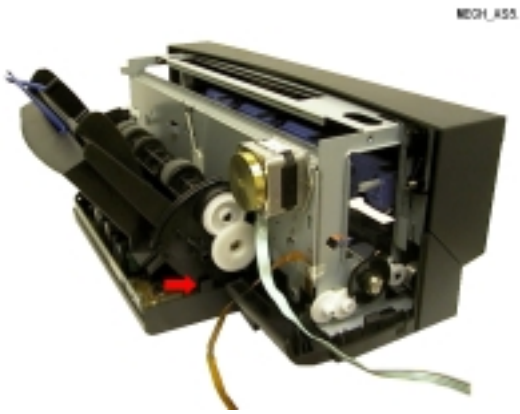
			
	Hung the point of Dumper_Spring on the behind the Frame_Unit.		

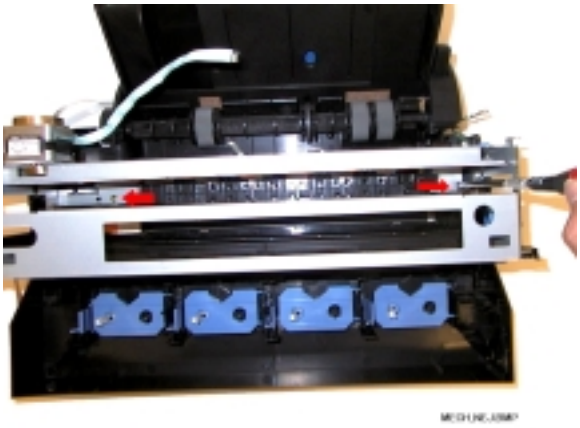
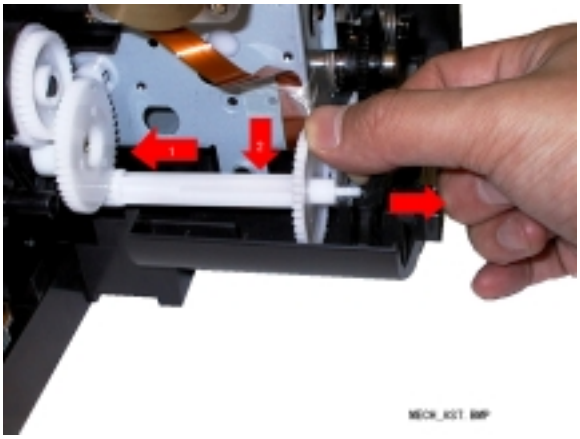
3.7 Installing of CSF_Unit

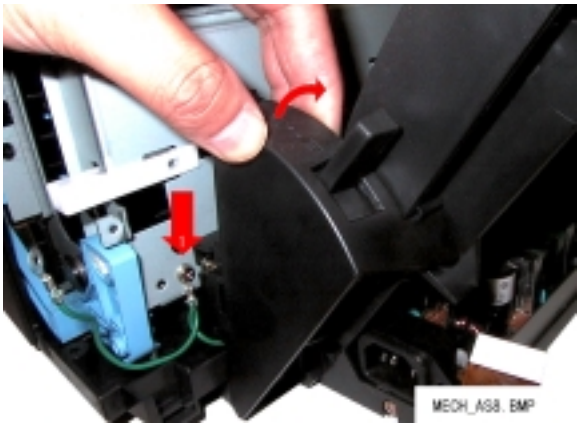
1		2	
	Install the CSF_Unit in the direction of the arrow.		Install the screw(M3*L6TP) while push down against the CSF_Unit in the place of the arrow.

3		4	
	Install the screw(M3*L6TP) while push down against the CSF_Unit in the place of the arrow.		Check no opening between CSF_Unit and Frame_Unit in the direction of arrow.
5			
	Check no opening between CSF_Unit and Frame_Unit in the direction of arrow.		

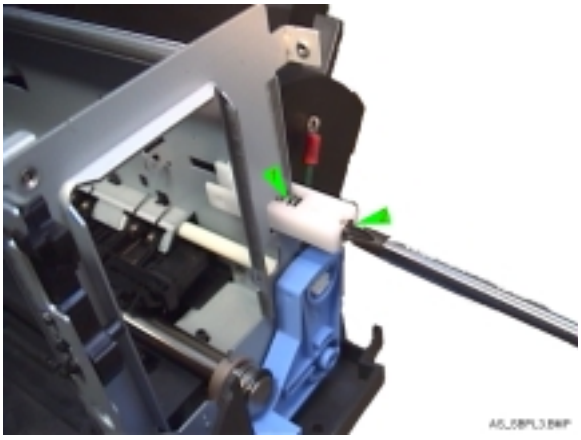
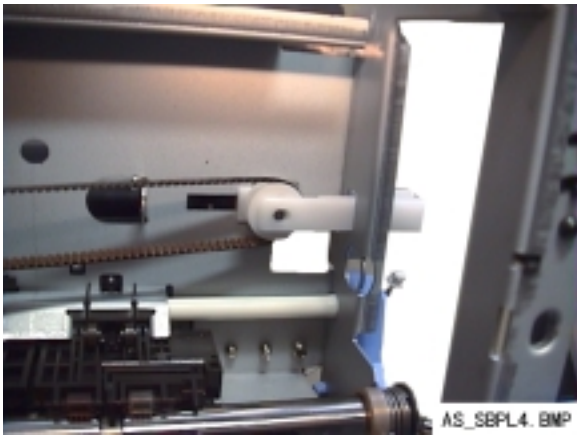
3.8 Installing of Mechanism

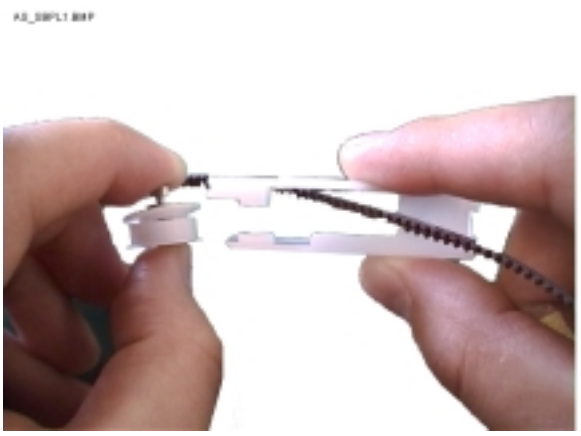
1		2	
	Put the Mechanism on the L_Cover_Assy.		Adjust two holes of Frame_Unit and projections of L_cover_Assy in the place of arrow.
3		4	
	Check installation point of L_Cover_Assy and CSF_Unit in the place of the arrow. Pull out the FG_Cable as shown.		Do same procedure on each side.

5		6	
	Install the screws(M3*L10P) in the place of the arrows 1 and 2.		Clamp the FPC (the upper part)and CR motor-cable(the lower side) in the place of the arrow.
7		8	
	Put the CSF_Idle_Gear in the place of the arrow 1 and push down it in the direction of the arrow 2 and install it into the point of L_Cover_Assy.		Install the PS_Lever to CSF_Cover_R as shown.

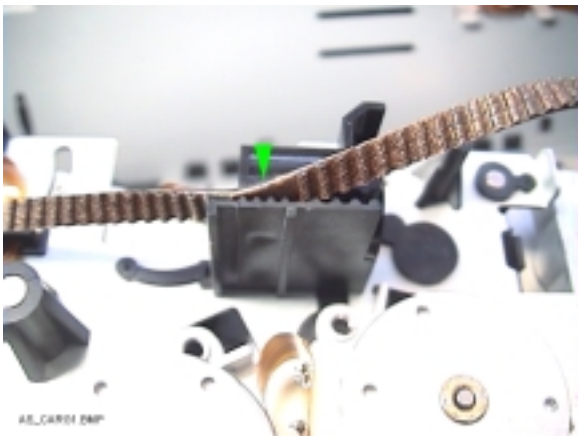
9		10	
	Install the CSF_Cover_R while pushing the PS_Lever in the direction of “A”. Next,hung the FG_cable on the gate of CSF_Cover_R.		Close the CSF_Cover_R in the place of the arrow and install the FG_Cable(arrow 1) with the screws.(M3*L6BIND).

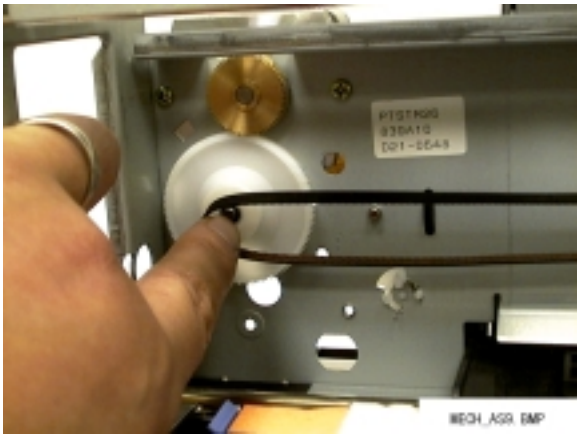
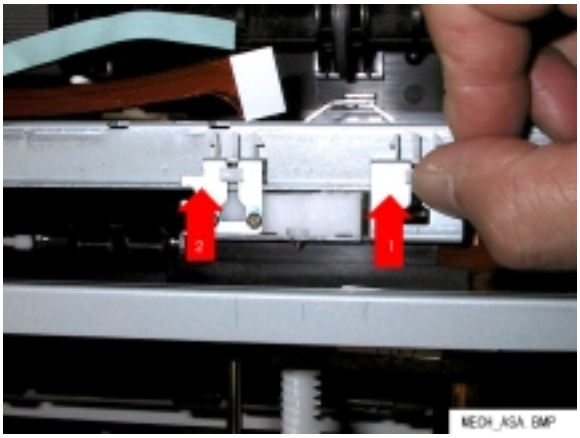
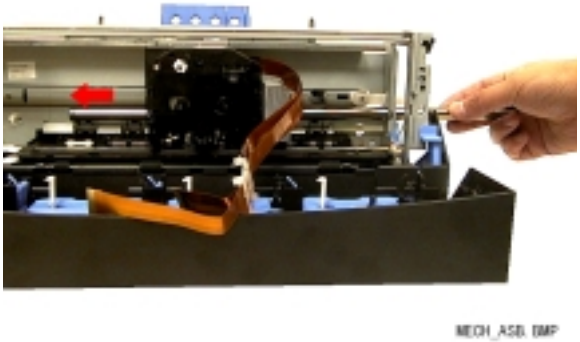
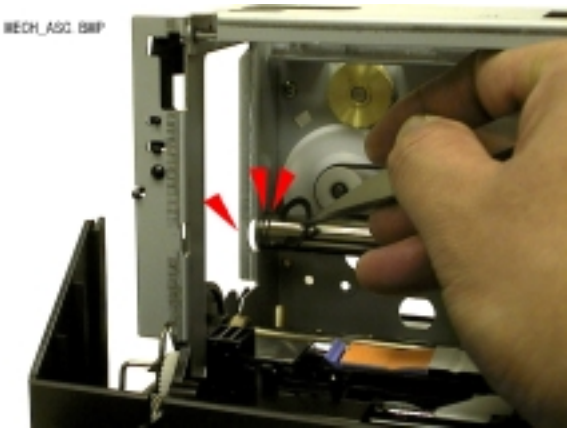
3.9 Installing of Sub_Pulley

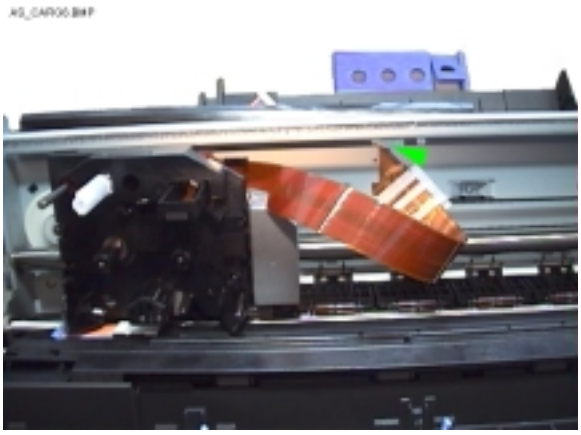
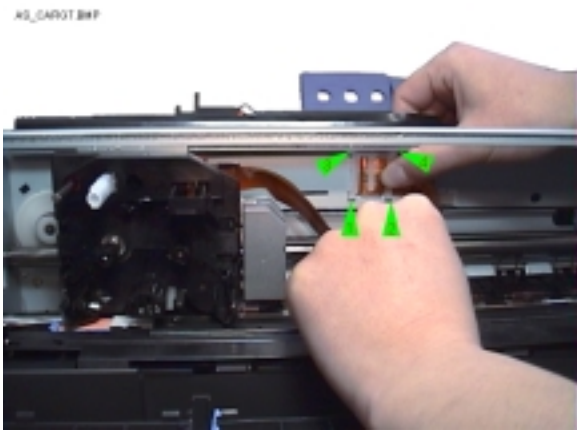
1		2	
	Install the Pulley_Base to Frame_Unit with Sub_Pulley_Shaft after inserting the Belt_Spring in the place of the arrow 1.		Install the CR_Belt and Sub_Pulley as shown.

3		4	
	Install Sub_Pulley, Sub_Pulley_Flange and Sub_Pulley_Shaft in the disposition as shown.		Spread the points of Pulley_Base and insert these parts.

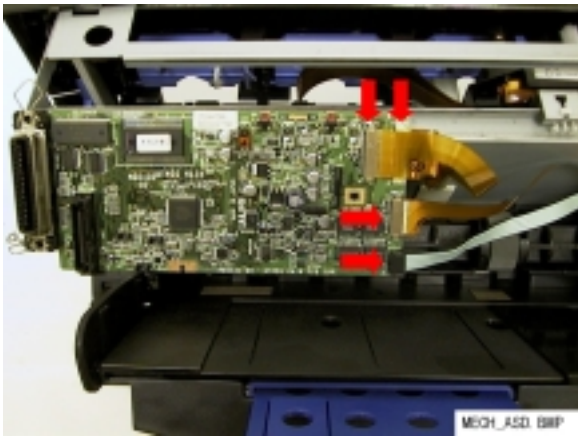
3.10 Installing of Carriage_Unit

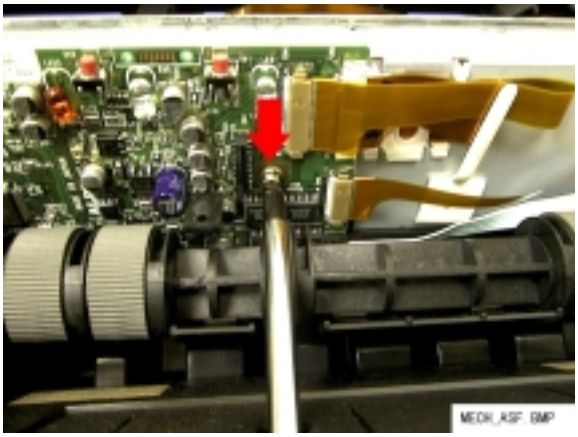
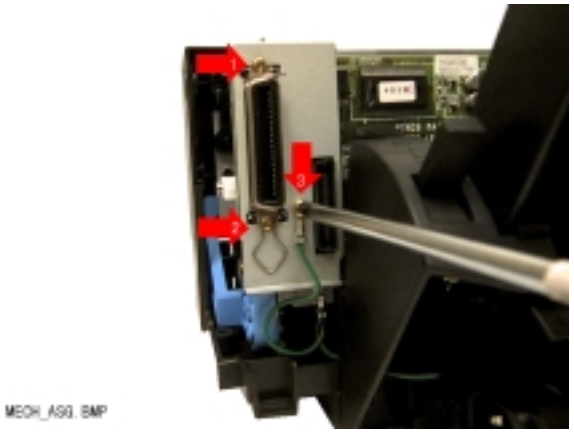
1		2	
	Hold the CR_Belt while keeping the teeth to this side. And into the place of the arrow on the Carriage.		Complete installation of CR_Belt (pushed into the iterior)to Carriage as shown.

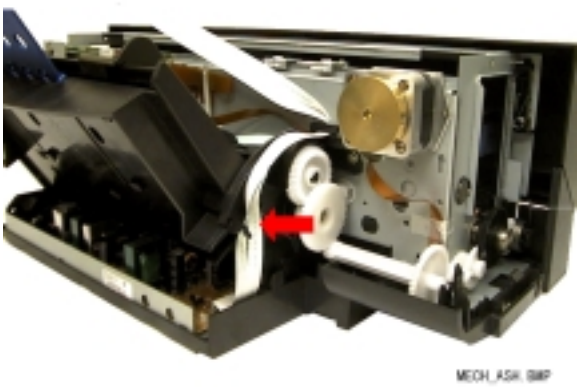
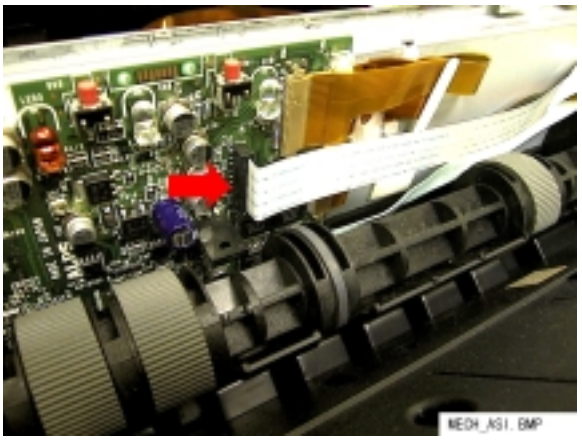
3		4	
	Install the CR_Belt on the CR_Drive_Pulley.		Install the Carriage on the Frame_Unit after opening each Cariage_Stopper in the place of the arrows.
5		6	
	Insert the Main_Shaft into Frame_Unit and Carriage in the direction of the arrow.		Install the Washer(for Main_Shaft) in the place of the arrows 1,2 and 3 with tweezers.

7		8	
	Move the FPC behind of the Frame_Unit through the hole of the place of the arrow.		Hook the FPC_Holder in the place of the arrows 1 and 2 on the Frame_Unit and install the snap in the place of the arrows 3 and 4 by pushing.

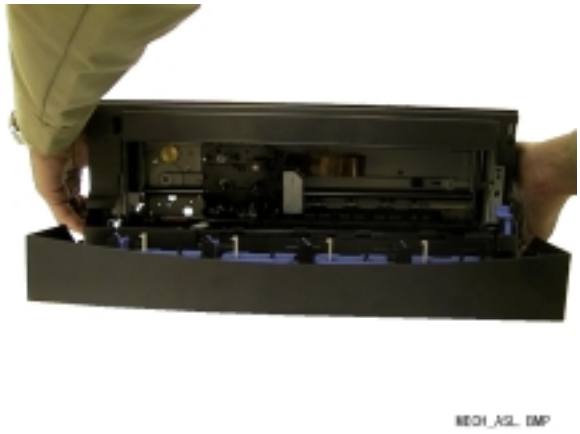
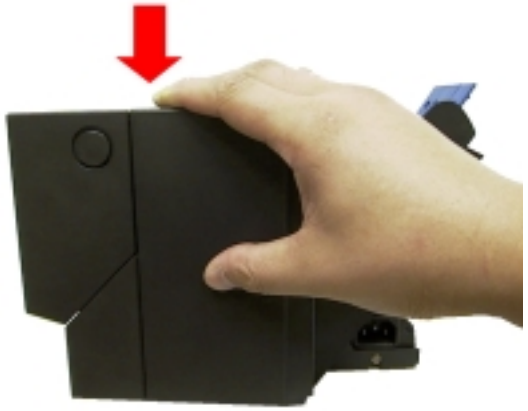
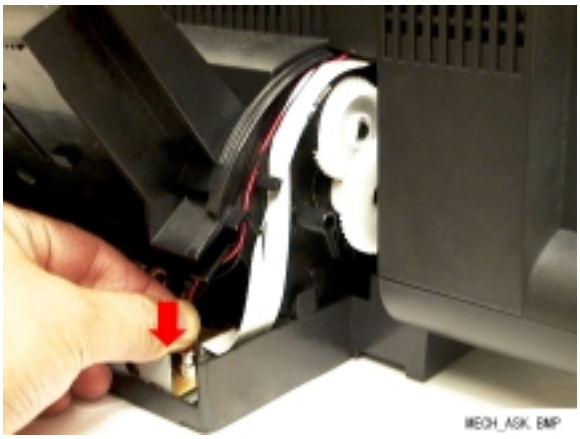
3.11 Installing of Main_PCB

1		2	
	Put the Main_PCB in the place as shown and install one harnesses and three FPC's into these connectors.		Insert the screwdriver through a hole of shown.

3		4	
	Install the screw(L3*L6TP) in the place of the arrow. Next, two FPC is fixed by clamping as shown in Figure.		Install the screws(1,2-M3*L12,3-M3*L6BIND) in the place of the arrows 1 ,2 and 3 after putting the I/F_Plate in the place as shown.

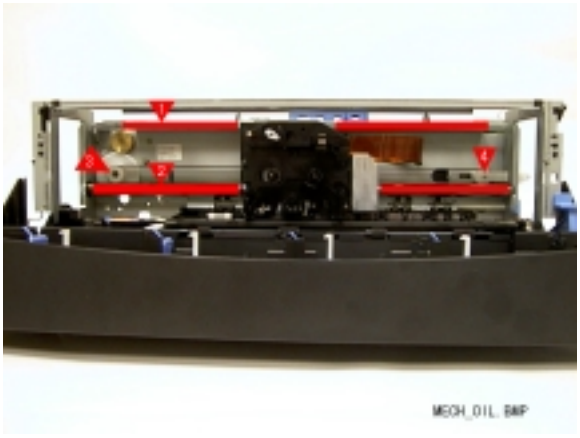
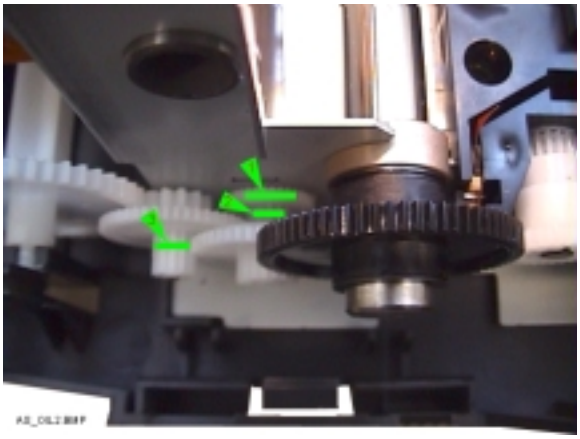
			
	Install the DC_Tape as shown in the figure.		Install the DC_Tape as shown in the figure.

3.13 Installing of Cases

1		2	
	Put the U_Cover_Assy on as shown with Front_Cover_Unit opened. Then pull out the Interface_Lock from U_Cover_Assy.		Push down each side of the U_Cover_Assy until clicks. At this time, put the edge of the Paper_Guide in U_cover_Assy.
3		4	
	Install the FAN-Cable and DC_Tape as shown in the figure.		Built CSF_cover_L into the direction of the arrow.

5			
	Install the Rear_Cover in the direction of the arrow. Check that there are no openings between CSF_Unit and Rear_Cover.		Install the screw (M3*L10P) in the place of the arrows 1, 2 and 3.

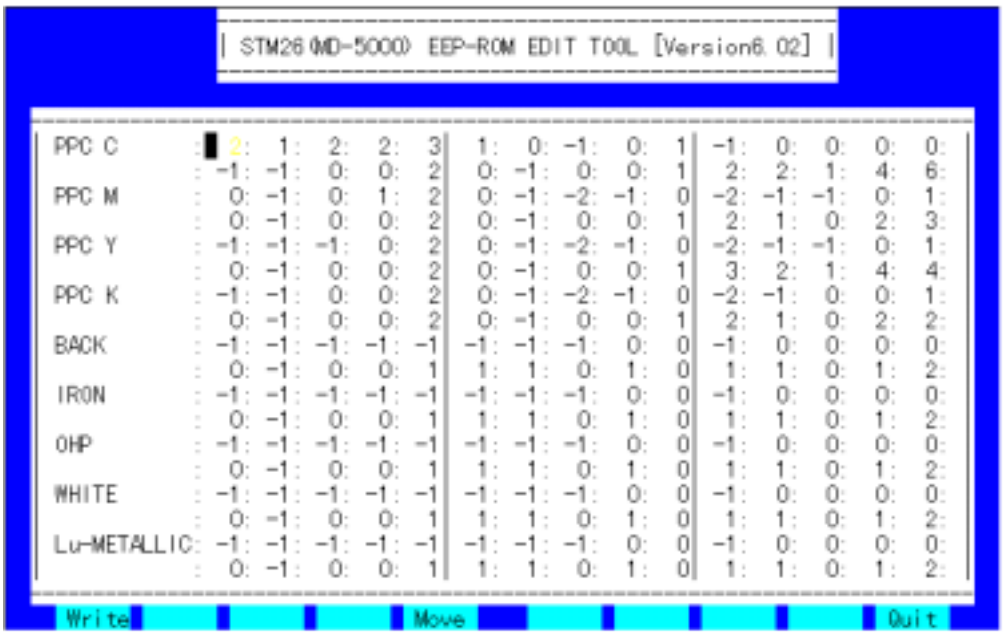
3.14 Lubrication

1		2	
	1-Frame(both side of rail):EM60L 2-Main_Shaft:EM50L T-6 3-Drive_Pulley_Shaft:T-6 4-Sub_Pulley_Shaft:EM50L		1,2,3-LF_Idle_Gear's:EM60L

4.1 Upper and lower light and shade adjustments for 600dpi print mode.
When something wrong is found in the print inspection, the following work is done.

1) Connect the printer cable to the printer and turn it on.
2) Start the program of \TOOL\W26_EDIT.EXE.

3) 10. Bank8 1/2 is selected with the cursor key.



4) The data of 30 bytes is manually adjusted respectively of Cyan (Future C), Magenta (Future M), Yellow (Future Y), and Black (Future B) about 600dpi print.
The first numerical value corresponds to one byte of the print head on. The last numerical Value

corresponds at a last one byte. The density can be adjusted by adding and subtracting (+10 shade 10 light) the numerical value every 30 blocks. Adjust the values of the references to the print result.

5) Press F10 to return back and press F1 to write to EEP_ROM. Press F10 and start “22.Quit“ for finishing the light and shade adjustments. The print inspection is repeated and if something wrong is found in the light and shade of the doing print, this work is repeated.

4.2 Upper and lower light and shade adjustments for “Vphoto Print with Vphoto Primer (Future Primer)” mode.

This needs to use the color scanner EPSON GT-9500 and some photo retouch soft wear(EPSON SCAN Photo SHOP etc.). The OS must be Win3.1.
Do following adjustments after finishing Head voltage adjustments.

(1) Starting \SCANER\PT_100.BAT prints the adjustment pattern.

(2) The print result is read with full color scanner (300dpi).
Store the result of reading in the same directory as \SCANER\PT_100.BAT.
Assume the file name to be 101.BMP always when you store it.
About notes when EPSON SCAN is used
When the data is preserved with this software, the number of 01 is automatically added behind the file name. Therefore, it should be specified 1.BMP when specifying for 101.BMP.

3) \SCANER\CLC_100.BAT is started.
The calculation of the light and shade adjustment is automatically begun. The result is written in EEP-• ROM.

(4) (1) - (3) is repeated twice.

Refer to the attached paper for setting the scanner. Start \SCANER\W26BKD10.EXE to return the content of the light and shade adjustment to an initial value.

4.3 Upper and lower light and shade adjustments for “Vphoto Print with Vphoto Print Film” mode.

This needs to use the color scanner EPSON GT-9500 and some photo retouch soft wear(EPSON SCAN Photo SHOP etc.). The OS must be Win3.1.
Do following adjustments after finishing Head voltage adjustments.

(1) Starting \SCANER\PT_50.BAT prints the adjustment pattern.

(2) The print result is read with full color scanner (300dpi).
Store the result of reading in the same directory as \SCANER\PT_50.BAT.
Assume the file name to be 101.BMP always when you store it.
About notes when EPSON SCAN is used
When the data is preserved with this software, the number of 01 is automatically added behind the file
name. Therefore, it should be specified 1.BMP when specifying for 101.BMP.

(3) \SCANER\CLC_50.BAT is started.
The calculation of the light and shade adjustment is automatically begun. The result is written in EEP-
ROM.

(4) (1) - (3) is repeated twice.

Refer to the attached paper for setting the scanner.
Start \SCANER\W26BKD50.EXE to return the content of the light and shade adjustment to an initial
value.

4.4 Upper and lower light and shade adjustments for “Dye-Sublimation Print (Future Dye-Sub Print)” mode.

This needs to use the color scanner EPSON GT-9500 and some photo retouch soft wear(EPSON SCAN Photo SHOP etc.). The OS must be Win3.1.
The OS must be Win3.1.Do following adjustments after finishing Head voltage adjustments.

(1) Starting \SCANER\PT_DSub.BAT prints the adjustment pattern.

(2) The print result is read with full color scanner (300dpi).
Store the result of reading in the same directory as \SCANER\PT_DSub.BAT.
Assume the file name to be 101.BMP always when you store it.
About notes when EPSON SCAN is used
When the data is preserved with this software, the number of 01 is automatically added behind the file
name. Therefore, it should be specified 1.BMP when specifying for 101.BMP.

(3) \SCANER\CLC_DSub.BAT is started.
The calculation of the light and shade adjustment is automatically begun. The result is written in EEP-
ROM.

(4) (1) - (3) is repeated twice.

Refer to the attached paper for setting the scanner.
Start \SCANER\W26BKDSub.EXE to return the content of the light and shade adjustment to an initial
value.

Attention

Use the undermentioned card ridge in the upper and lower light and shade adjustment According to each
mode.

Upper and lower light and shade adjustments for “Vphoto Print with Primer” mode.

Use card ridge C M Y B VP Finish (Future F) Primer

Upper and lower light and shade adjustments for “Vphoto Print with Vphoto Print Film” mode.

Use card ridge C M Y B F

Upper and lower light and shade adjustments for “Dye-Sublimation Color Print” mode.

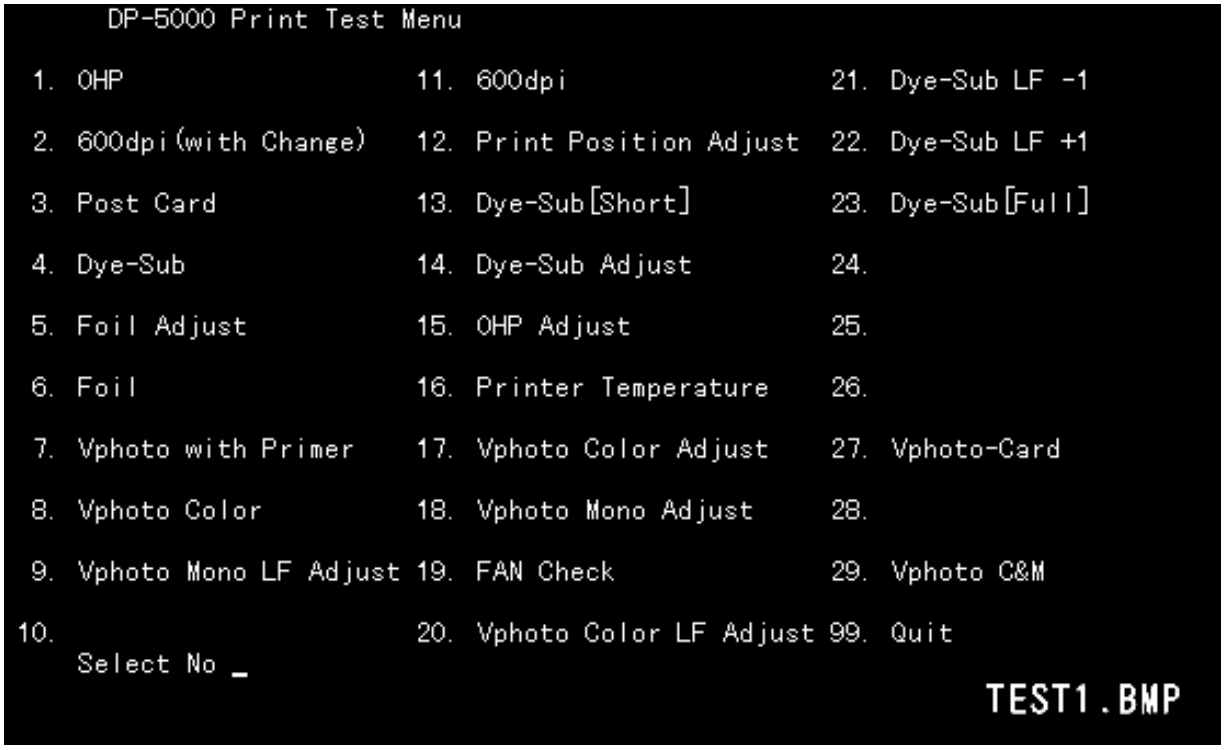
Use card ridge Dye-Sublimation Cyan(Future Dye-sub C) Dye-Sublimation Magenta
(Future Dye-sub M)• Dye-Sublimation Overcoat(Future Dye-sub OC)

(Dye-sub M) Dye-Sublimation Overcoat (Dye-sub OC)

4.5 Printing test

1) Connect the printer cable to the printer and turn it on.

2) Start the program of \STM32\W26.BAT.



3) Supply each cartridge and each paper to the printer and start printing test.

4) Main menu and Cartridge and Paper.

No.	TEST	Paper		Cartridge
1	Test of OHP Film 600dpi	OHP		C,M,Y,B
2	Test of High Grade Paper 600dpi	HGP		C,M,Y,B
3	Test of Post Card 600dpi	Card		C,M,Y,B
4	Test of Dye-Sub Paper	Dsub		Dye-SubC,M,Y,OC
5	Test of Foil print position	Card		B,Gold Foil
6	Test of Foil	Card		C,M,Y,B Gold/Silver Foil
7	Test of Vphoto Color with Primer	HGP		C,M,Y,B,F,Primer
8	Test of Vphoto Color	Vphoto		C,M,Y,B,F
9	Test of Vphoto Mono	Vphoto		B,F
11	Test of High Grade Paper 600dpi	HGP		C,M,Y,B
12	Adjust of print position	---------		----------
13	Test of Dye-Sub Color Paper(Short)	Dsub		Dye-SubC,M,Y,OC
14	Adjust of Dye-Sub Color	Dsub		Dye-SubC,M,Y,OC
15	Adjust of (only white line and black line check)	OHP		C,M,Y,B
16	Check Printer tenperature	----------		----------
17	Adjust of Vphoto Color	Vphoto		C,M,Y,B,F
18	Adjust of Vphoto Mono	Vphoto		C,M,Y,B,F
19	Check	----------		----------
20	Adjust of Vphoto Color LF	Vphoto		C,M,Y,B,F
21	Adjust of Dye-Sub Color LF -1	---------		----------
22	Adjust of Dye-Sub Color LF +1	----------		----------
23	Test of Dye-Sub Color Paper(Full)	Dsub		Dye-SubC,M,Y,OC
27	Test of Vphoto Card	Vcard		C,M,Y,B,F
29	Check Vphoto C&M	Vphoto		C,M,Y,B,F

Paper types
OHP:OHP Film Dsub: Dye-Sub Paper
HGP: High Grade Paper Vphoto: Vphoto Print Film
Card: Post Card Vcard: Vphoto Card

5) Check the working of FAN after taking off and inserting each harness once while printing by printer driver.

4.6 Explanation of usage of each print mode

No.1-No.9 No.1-No.9 is a usual shipment inspection and an adjustment pattern.
However, No. ,5 is not usually used.

No.11 It is an inspection pattern of the 600dpi Print of High Grade Paper.
This does not contain the cartridge change test.

No.12 It is positioning of the print beginning. It is only input of the numerical value.

No.13 It is a shortening pattern of the Dye-Sub Color inspection. This is used to confirm something wrong.

No.14 This is used to correct something wrong with the Dye-Sub Color print.
The repair of upper and lower light and shade and a black line and the white line can be corrected.

No.15 In this item, a white line and a black line can be adjusted by the OHP print.
However, the numerical value can be only input in this item.
Please confirm the result of the adjustment (clause of No.1).

No.16 Confirmation of temperature of printer
An environmental temperature and the temperature of the head can be confirmed.
This item is not usually used.

No.17 It is a manual upper and lower light and shade adjustment of the Vphoto Color.
Please confirm the state of the print result and select the best adjustment item.

No.18 It is a manual upper and lower light and shade adjustment of the Vphoto Mono.
Please confirm the state of the print result and select the best adjustment item.

No.19 It is for the confirmation of fan operation. The fan works when this item is selected.
The operation stops to come off this item.

No.20 It is LF adjustment of the Vphoto Color. Please choose the best item seeing the print result.

No.21 It is LF adjustment of the Dye-Sub color print. The paper feed step does automatically when this item is Selected and –1(contract)is done. However, the numerical value is only input in this item. Please confirm the result of the adjustment (clause of No.4).

No.22 It is LF adjustment of the Dye-Sub color print. The paper feed step does automatically when this item is Selected and +1(extend) is done. However, the numerical value is only input in this item. Please confirm the result of the adjustment (clause of No.4).

No.23 It is a A4 full pattern of the Dye-Sub Color inspection. This is not usually used.

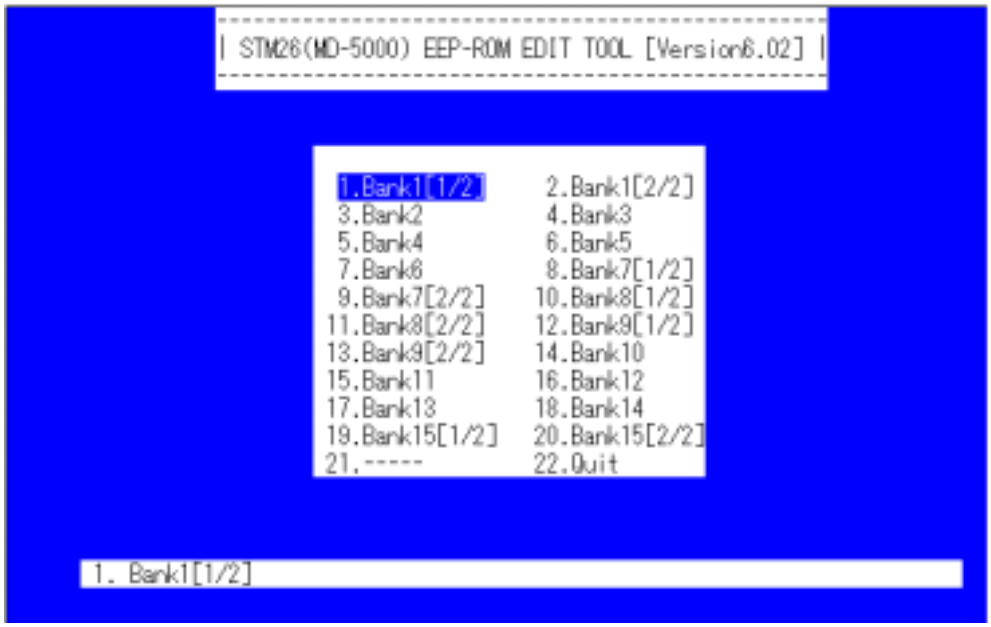
No.27 It is a postcard inspection pattern of the Vphoto Color. This is not usually used.

No.29 Cyan and magenta of the Vphoto color are printed dividing. When light and shade is adjusted, each state can be confirmed. It is convenient to judge the adjustment method.

4.7 Method of adjusting light and shade without using scanner.
Or, the method of adjusting the manual when light and shade cannot be adjusted with the scanner.

(1) Connect the printer cable to the printer and turn it on.

(2) Start the program of \TOOL\W26_EDIT. EXE.



The light and shade adjustment data of each print mode is stored in an under mentioned item.
If you need the manual adjustment, the adjustment becomes possible by rewriting these numerical values.

10.Bank8 ½ PPC C/PPC M/PPC Y/PPC K
The 600dpi light and shade adjustment data

8.Bank7[1/2] • SUBLIMATE C/ SUBLIMATE M/ SUBLIMATE Y
Dye-Sub Color prints light and shade adjustment data

VARY 100co C/ VARY 100co M/ VARY 100co Y/ VARY 100co K
Vphoto Color prints with Vphoto Print Film light and shade adjustment data

VATY50mo
Vphoto Mono prints with Vphoto Print Film light and shade adjustment data

8.Bank7[2/2] UP+VARYco C/ UP+VARYco M/ UP+VARYco Y/ UP+VARYco K/
Vphoto Color prints with Primer light and shade adjustment data

UP+VATYmo
Vphoto Mono prints with Primer light and shade adjustment data

5.1 Cleaning

5.1.1 Cleaning of exterior

Use a soft cloth moistened with alcohol or watered neutrality cleanser (if necessary) to clean the exterior. Do not use any other chemicals (such as thinner) as these may damage the plastic.

MENTE1.BMP

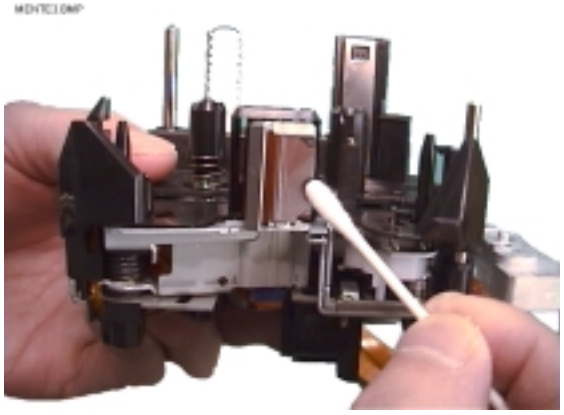
5.1.2 Cleaning of inside

Use a vacuum cleaner (if necessary) to remove dust.

5.1.3 Cleaning of Print_Head

1) Turn off the power. Remove the power cord from the power inlet.
2) Open the Front_Cover_Unit and wipe the Print_Head lightly with a cotton swab moistened with alcohol (if necessary).
3) Do a print test and check the print quality.

Caution: Do not touch the surface of Platen with the alcohol cotton swab.



5.1.4 Cleaning of Platen

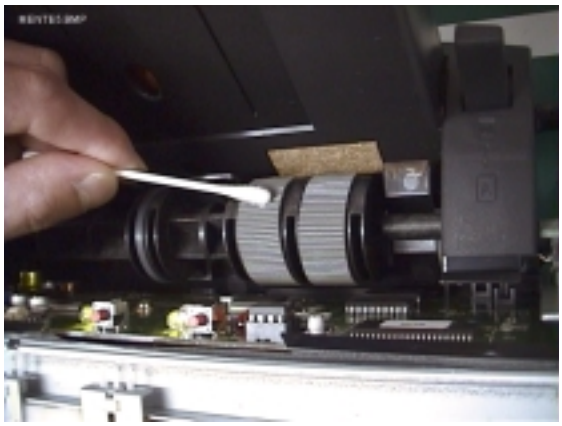
1) Turn off the power. Remove the power cord from the power inlet.
2) Open the Front_Cover_Unit.
3) Affix cellophane tapes to the Platen and rub it lightly.
4) Remove the tape.
5) Repeated the 3 and 4 until becomes the Platen is clean.
6) Do a print test and check the print quality.

Caution: Do not place tape on the Cleaning_Pad because the pad may peel off and cause the printer to malfunction.

5.1.5 Cleaning of CSF_Unit

1) Turn off the power. Remove the power cord from the power inlet.
2) Remove the U_Cover_Assy.
3) Wipe the rubber roller with a damp cotton swab.
4) Install the U_Cover_Assy.
5) Check the paper feeding operation.

Caution: Do not use an excessively wet cotton swab. The water may drop on other components causing damage to the printer.



1. Power

Problem	Cause	Action
No Power	Connector is not properly inserted.	Check CN1 (Main_PCB). Check the connector of Power_Supply
	DC_Cable is broken off.	Replace the DC_Cable.
	Blown Fuse.	Replace the Power_Supply and adjust head voltage.
	No DC power.	Replace the Power_Supply and adjust head voltage.
	Main_PCB is missing	Replace the Main_PCB and return the EEP_ROM.
Power is turned on but Carriage does not function.	Connector is not properly inserted.	Check CN5, 6 (Main_PCB).
	FPC is broken off.	Replace mechanical unit and set each adjustment.
	Main_PCB is missing	Replace the Main_PCB and return the EEP_ROM.
	Curl_Motor does not move.	Check moving or replace Frame_Unit and set each adjustment.
	UD_Motor does not move. Bad RC_Sensor.	Replace the Carriage_Unit and set each adjustment.

2. Printing

Problem	Cause	Action
Mechanism moves but cannot print.	Connector is not properly inserted.	Check CN4 (Main_PCB).
	FPC is broken off.	Replace the Carriage_Unit and set each adjustment.
	Incorrect head voltage.	Check and adjust head voltage.
	Main_PCB is missing	Replace the Main_PCB and return the EEP_ROM.
Upper and lower light and shade.	Connector is not properly inserted.	Check CN4 (Main_PCB).
	FPC is broken off.	Replace the Carriage_Unit and set each adjustment.
	Miss adjustment.	Adjustment of Light and shade.
Vertical constant stripes.	No oil on the Main_Shaft. No oil on the Frame_Unit.	Lubrication
	CR_Drive_Pulley is missing.	Replace the CR_Drive_Pulley.
Inconstant stripe.	Some alien substance on the Platen.	Cleaning or replacing of Platen.
	Some alien substance on the Frame rail.	Replace the Frame_Unit and set each adjustment.
Missing dot.	Bad Head.	Replace the Carriage_Unit and set each adjustment.
Broken ribbon	Connector is not properly inserted.	Check CN7, 8(Main_PCB).
	FPC is broken off.	Replace mechanical unit and set each adjustment.

3. Paper feed

Problem	Cause	Action
Paper jam	Veil_Unit is not properly installed.	Check or replace the Veil_Unit.
	CSF_Unit is not properly installed.	Check or replace the CSF_Unit.
	Frame_Unit is damaged.	Replace Frame_Unit or CSF_Unit and set each adjustment.
Does not feed paper	Connector is not properly inserted.	Check CN5 (Main_PCB).
	Bad PE_Lever or LF_Sensor	Replace the Frame_Unit and set each adjustment.
	Bad CSF_Sensor or PE_Sensor	Replace the Main_PCB and return the EEP_ROM.

4. Cartridge Change

Problem	Cause	Action
Cartridge change error.	Bad Carriage_Unit. Detached Cassette_Lever Cassette_Carrier position	Replace the Carriage_Unit and set each adjustment.

5. Paper curl correction

Paper curl correction does not work properly.	Front_cover_Unit is not properly installed.	Check or replace the Front_Cover_Unit.
	Veil_Unit is not properly installed.	Check or replace the Veil_Unit.

5. Other

Front_Cover opens too quickly.	Dumper_Spring is not properly installed.	Adjust the spring.

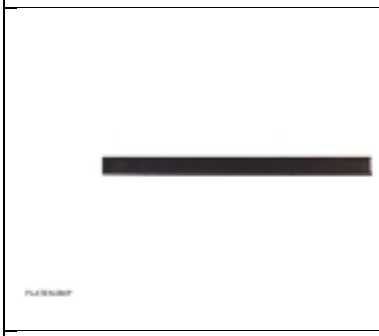
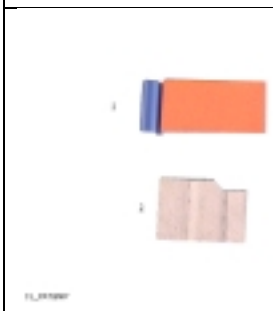
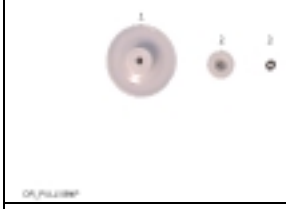
Illustration		Part's Number	Part's Name	Qty	Min Lot	LT
		M03274	Platen	1	25	3
	1	M40072	Cleaning_Pad_Dye-Sub	1	25	3
	2	M40087	Cleaning_Pad	1	25	3
		• • • • •				
	1	M10193	CR Drive_Pulley	1	25	3
	2	M10177	Pulley_Flange	1	25	3
	3	PW0250002	Washer(for Pulley)	1	1,000	3
		DM01165	Carriage_Unit Data File(Floppy Disk) light and shade Data middle press Data head voltage Data	1	30	10

Illustration		Part's Number	Part's Name	Qty	Min Lot	LT
	1	M06701	Main_Shaft	1	25	3
	2	PW1100002	Washer(for Main_Shaft)	3	1,000	3
		DM01158	Veil Unit	1	25	10
		M31608	Veil Spring	1	50	3
		DM01170	Front_Cover_Unit • (with Damper spring)	1	25	6
	1	DM01146	CSF_Unit	1	25	6

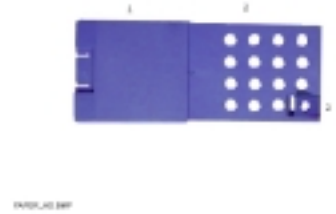
Illustration		Part's Number	Part's Name	Qty	Min Lot	LT
		M05354A	Paper_Holder_Assy	1	25	3
	1	M05356	Holder_Base	1	25	3
	2	M05355	Paper_Holder	1	25	3
	3	M05354	Card_Stopper	1	25	3
		TM26A03BX	Main_PCB	1	25	10
		M73051	Power_Supply	1	25	10
	1	M66154	DC Tape	1	25	6
	2	DQC10034A0	Ferite Core	1	25	3
	3	M68003	Binder	1	25	3
	4	PEB01025AA	Cramp	1	25	3

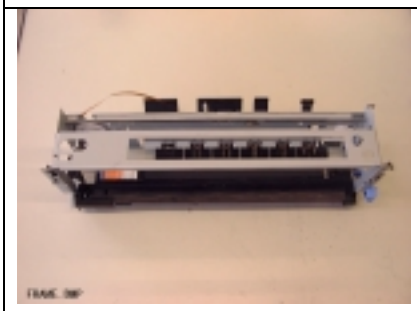
Illustration		Part's Number	Part's Name	Qty	Min Lot	LT
		DM01154	Frame_Unit Data File(Floppy Disk) LF Adjustment Data	1	10	10
	1	M06648	Sub_Pulley_Shaft	1	25	3
	2	M10181	Sub_Pulley	1	25	3
	3	M10180	Sub_Pulley_Frange	1	25	3
	4	M31612	Belt_Spring	1	25	3
	5	M07399	Pulley_Base	1	25	3
	6	M06642	Pulley_Base_Shaft	1	25	3
		M02412A	L_Cover_Assy	1	10	3

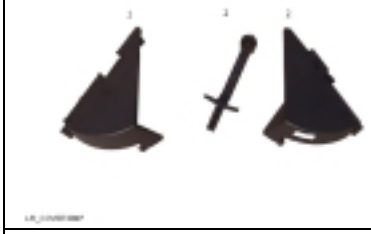
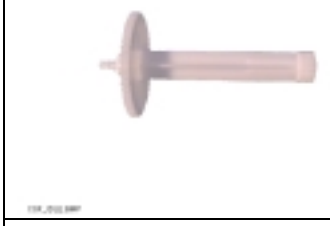
Illustration		Part's Number	Part's Name	Qty	Min Lot	LT
		M02417	Rear_Cover	1	10	3
	1	M02418	CSF_Cover_L	1	50	3
	2	M02414	CSF_Cover_R	1	50	3
	3	M13286	PS_Lever	1	15	3
		M02453A	U_Cover_Assy	1	10	6
		M11499	CSF_Idle_Gear	1	25	3
		M61004	FAN	1	25	3

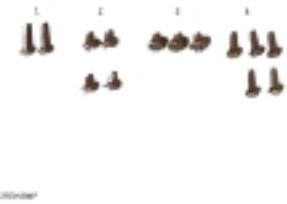
Illustration		Part's Number	Part's Name	Qty	Min Lot	LT
	1	S01300100	M3*L12 Screw	2	5,000	3
	2	S03300002	M3*L6BIND Screw	4	4,000	3
	3	S95300011	M3*L6TP Screw	3	4,000	3
	4	S93300004	M3*L10P Screw	5	4,000	3
		M66153	FG_Cable_2	1	25	8
		M07388	I/F_Plate	1	25	3
	1	M92717	CR_Stopper	1	25	3
	2	M92676	CarriagePackingMaterial	1	50	3
		M92668A	Packing_Unit	1	25	3
		M92726A	Cushion Assy	1	25	3

Illustration		Part's Number	Part's Name	Qty	Min Lot	LT
		M92611	Packing Box	1	25	3

Reference Material

Grease		Manufacture	Dow Corning
		Product Name	Moricoat EM60L
		Manufacture	Dow Corning
		Product Name	Moricoat EM50L
Oil		Manufacture	Kanto Chemical Industry
		Product Name	Froil T-6

Refer to Chapter 2 and Chapter 3 for the exchange procedures of parts. Inspect and adjust under mentioned content after exchanging parts.

Exchange Parts	Head voltage adjustment	Paper feed(LF) / middle press Install	Light and Shade Adjustment	Print test menu No.									
				1	2	3	4	5	6	7	8	9	
Platen	-	-	X	O	O	X	O	X	O	O	O	O	
CR Drive Pulley	-	-	-	-	-	-	O	-	-	-	-	-	
Carriage Unit	O	O	O	O	O	X	O	X	O	O	O	O	
Veil Unit	-	-	-	O	O	X	O	X	O	O	O	O	
Front Cover Unit	-	-	-	-	O	-	-	-	-	-	-	-	
CSF Unit	-	-	-	O	O	X	O	X	O	O	O	O	
Main PCB(return EEP)	O	X	X	O	O	X	O	X	O	O	O	O	
Power Supply Unit	O	-	X	O	O	X	O	X	O	O	O	O	
Frame Unit	-	O	X	O	O	X	O	X	O	O	O	O	
L Cover Assy	-	-	-	O	O	X	O	X	O	O	O	O	

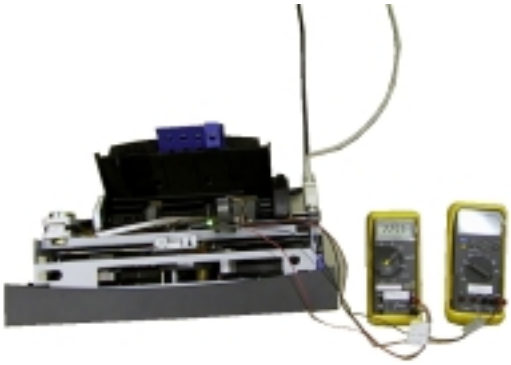
- : Don't care
O : Do Test or Adjustment
X : Do if it is necessary.

8.1 Various adjustment methods when parts are exchanged

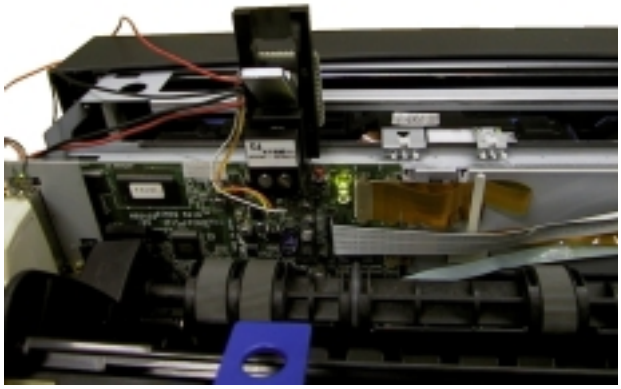
8.1.1 Carriage_Unit

When the carriage unit is exchanged, the following adjustments are necessary.
Input of the light and shade adjustment data
Voltage adjustment of power supply unit
Voltage adjustment of MAIN-PCB
Please do the following procedures after exchanging the carriage unit.

(1) Please install a special connector at a MAIN-PCB and the voltage tester.

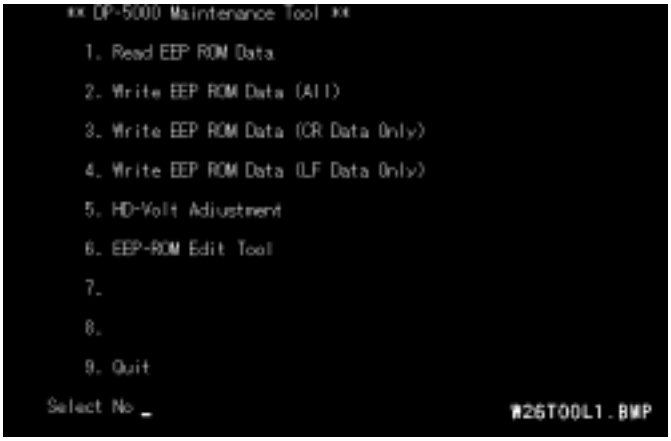


TEST_CNT.BMP



vol_cnct.bmp

(2) Please connect the computer and the printer.
Please start special software. [\TOOL\W26TOOL.BAT]


** DP-5000 Maintenance Tool **
1. Read EEP ROM Data
2. Write EEP ROM Data (All)
3. Write EEP ROM Data (CR Data Only)
4. Write EEP ROM Data (LF Data Only)
5. HD-Volt Adjustment
6. EEP-ROM Edit Tool
7.
8.
9. Quit
Select No _

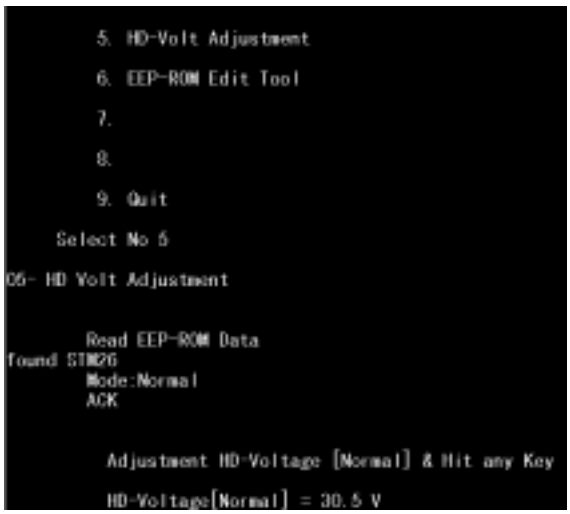
W26TOOL1.BMP

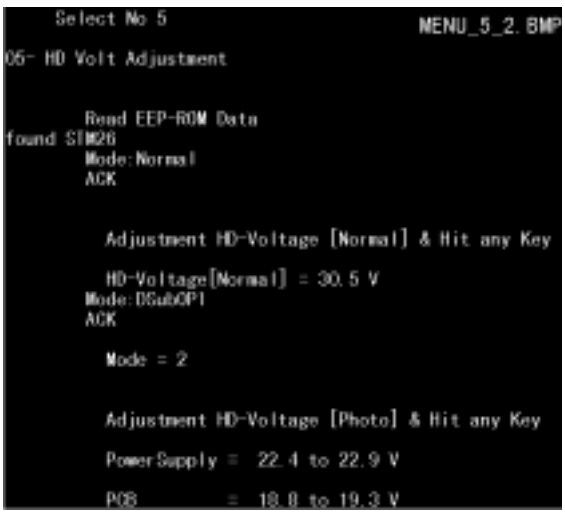
- (3) Write the content of the floppy disk appended to a new carriage unit in the printer.
Please set the floppy disk in the computer and select menu number 3.
Please work according to the display. The number is described on the floppy disk.

(4) Please select menus number 5 because the voltage is adjusted.

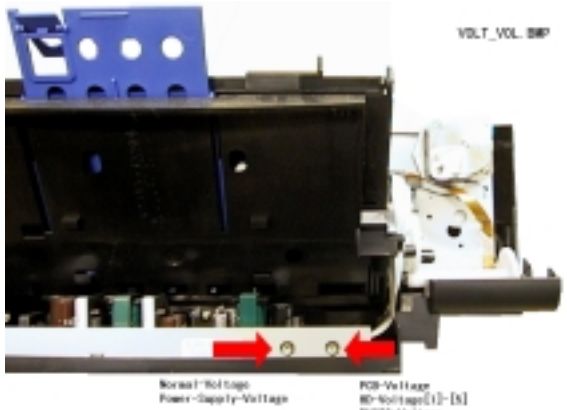
(5) Adjustment of normal voltage

Please adjust the voltage of the power supply to the voltage displayed on the screen.





←(6)



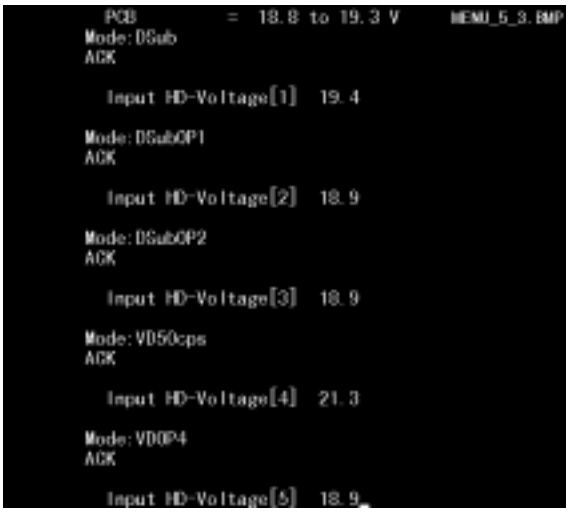
PCB_VOL.BMP

(6) Adjustment of Dye-Sub voltage

Please adjust the power supply with the voltage of main PCB within the range of the voltage that the screen

was displayed.

(7) Please input the value which the voltage tester indicates because it is displayed on the screen as "Input HD-Voltage [1]". This display exists to [1]-[5]. *Voltage tester is PCB-Voltage



←(8)

(8) HD-Voltage[DSub]
HD-Voltage[DSubOP1]
HD-Voltage[DSubOP2]
HD-Voltage[VD50cps]
HD-Voltage[VDOP4]
Each above-mentioned voltage is displayed on the screen.
Please confirm be the same as the value, which the voltage tester indicates.

(9) Please do necessary adjust and the print tests.

8.1.2 Power supply

(1) Please install a special connector at a MAIN-PCB and the voltage tester.

(2) Do clause (4) - (9) in clause 8.1.1 after exchanging the power supply.

8.1.3 MAIN-PCB

When the MAIN-PCB is exchanged, the following adjustments are necessary.
Replacement of various the data
Voltage adjustment of power supply unit
Voltage adjustment of MAIN-PCB

8.1.3.1 If the error lamp does not blink

(1) Please connect the computer and the printer.
Please start special software. [\TOOL\W26TOOL.BAT]

(2) The data of EEP-ROM is read from old PCB to the computer.
Please set the floppy disk in the computer and select menu 1.
Please work according to the display. Please input the arbitrary number.

(3) Please exchanging MAIN-PCB

(4) Please connect the computer and the printer.
Please start special software. [W26TOOL.BAT]

(5) The content of former data is written in new MAIN-PCB.
Please set the floppy disk in the computer and select menu number 2.
Please work according to the display. Please Input the same number used in (2).

(6) It is necessary to adjust the voltage. Please do the same work as the power supply exchange of clause 8.1.2.

(9) Please do necessary adjust and the print tests.

8.1.3.2 When the error always occurs

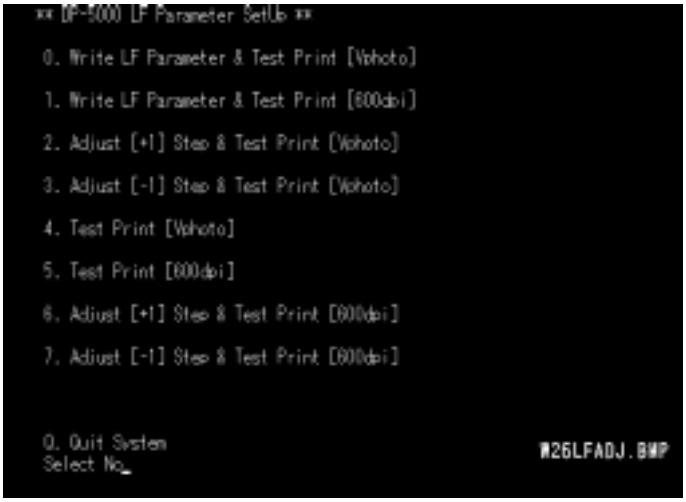
(1) The data cannot be replaced.
Please install at NEW-MAIN-PCB detaching EEP-ROM from former MAIN-PCB.

(2) It is necessary to adjust the voltage. Please do the same work as the power supply exchange of clause 8.1.2.

(3) Please do necessary adjust and the print tests.

8.1.4 Frame_Unit

(1) Please connect the computer and the printer.
Please start special software. [\TOOL W26LFADJ.BAT]


** DP-5000 LF Parameter SetUp **
0. Write LF Parameter & Test Print [Vphoto]
1. Write LF Parameter & Test Print [600dpi]
2. Adjust [+1] Step & Test Print [Vphoto]
3. Adjust [-1] Step & Test Print [Vphoto]
4. Test Print [Vphoto]
5. Test Print [600dpi]
6. Adjust [+1] Step & Test Print [600dpi]
7. Adjust [-1] Step & Test Print [600dpi]
Q. Quit System
Select No.
W26LFADJ.BMP

Explanation of usage of each menu

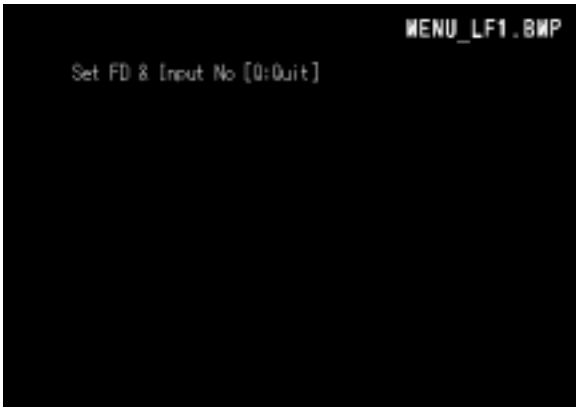
No.1 After writing LF parameter, test printing in 600dpi mode.

No.5 Test printing in 600dpi mode.

No.6 Widen 1 step line feed, and test printing in 600dpi mode.

No.7 Shorten 1 step line feed, and test printing in 600dpi mode.

(2) Write the content of the floppy disk appended to a new Frame_Unit in the printer.
Please set the floppy disk in the computer and select menu number 1.
Please work according to the display. The number is described on the floppy disk.
And test printing at the last.



(3) Please confirm the state of the test print result and select the best adjustment item (menu No6, 7).

(4) Please do necessary adjust and the print tests.

Chapter 9: Software

9.1 Content of software

The following content is included in appended CD.
Empty capacity of the hard disk is about 500 MB necessary.
Please cancel Read_Only attribute, after copying these data (\STM32,\SCANR,\TOOL) to C drive.

(1) \STM32
Print inspection pattern for maintenance
Edit software of EEP-ROM [W26_edit.exe]
Please install this data at C drive.

(2) \SCANER
Software, which relates to scanner for upper and lower light and shade adjustment.
The operating system must use “Win3.1".
Please install this data at C drive.

(3) \TOOL
Software for maintenance• W26TOOL.BAT•
Software of EEP-ROM is Read and Write•
Software of HD-Voltage adjustment
Software for LF Parameter setup W26LFADJ.BAT
Please install this data at C drive.

(4) \MANU_BMP
It is the bit map data used when the maintenance manual is made.

(5) \PART_BMP
It is the bit map data used when the Part-List is made.

(6) \PRN_DATA

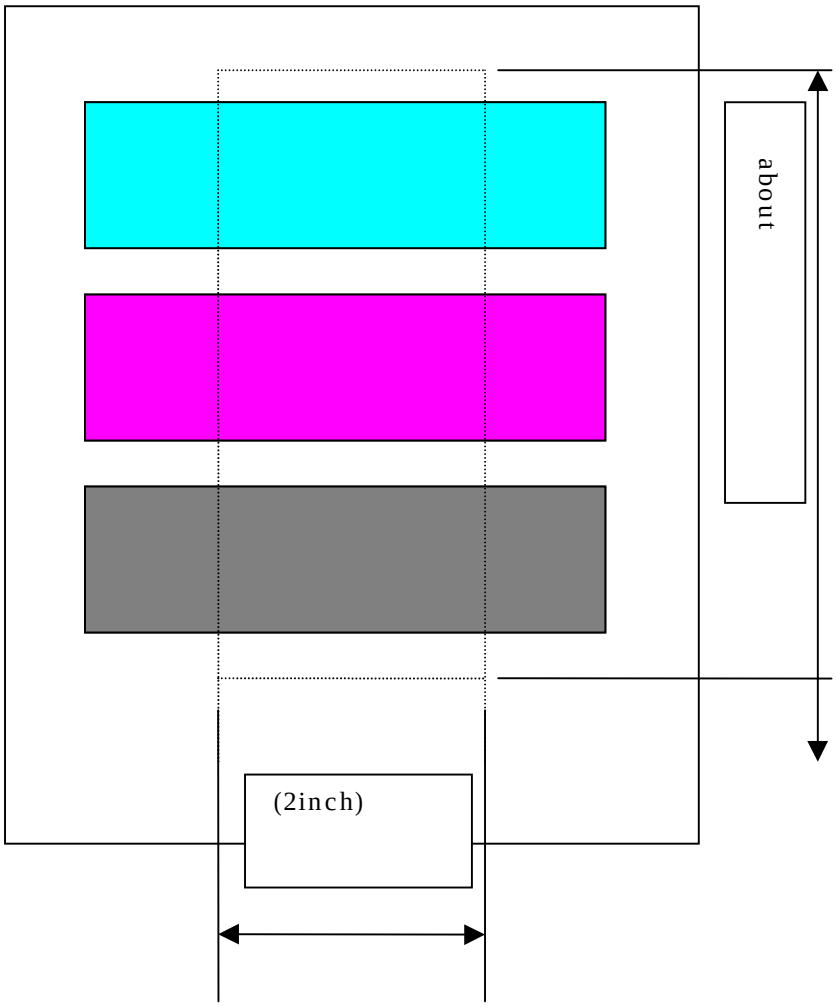
It is the print data of this book. “LP1" It is possible to print with DP-5000 with a tool.
[Example] lp1 file-name. PRN

(7) \DOC

These sentences are described with Microsoft Word“Word97".

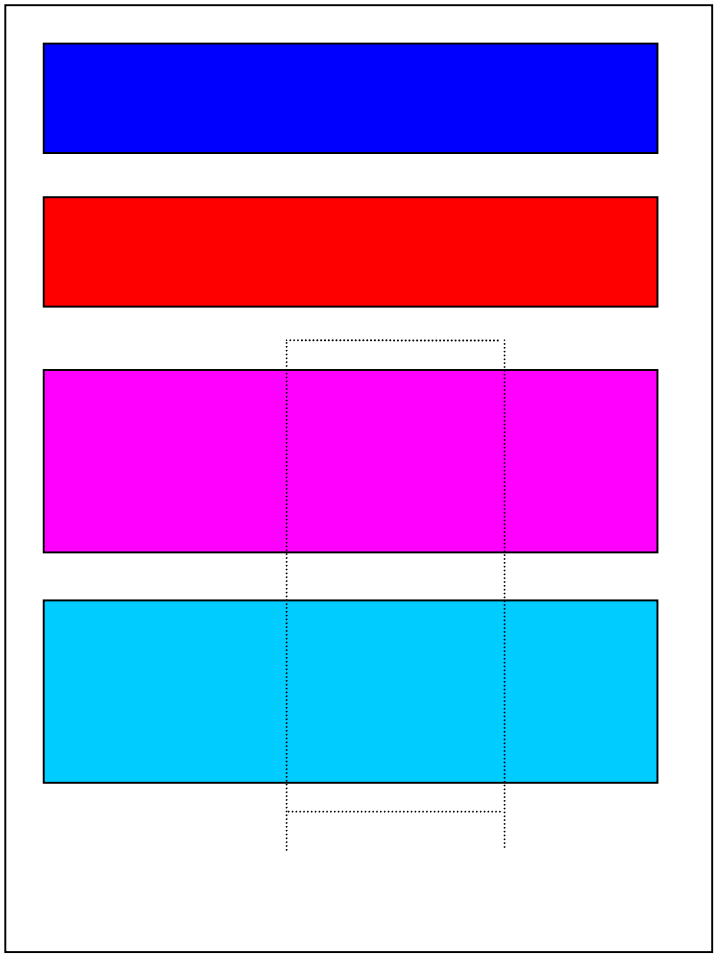
9.2 About the range of reading of the data when upper and lower light and shade is adjusted

9.2.1 Upper and lower light and shade adjustments for “Vphoto Print with Primer” mode.
Upper and lower light and shade adjustments for “Vphoto Print with Vphoto Print Film” mode.



Range of reading
X=Read the width of about 2inches in the vicinity of the center within the range of the print.
Y=Read the entire pattern.

9.2.2 Upper and lower light and shade adjustments for “Dye-Sub Print ” mode.



Range of reading
X=600
Y=2049